RADWAG®

Since 1984

laboratory balances

Contents

Ultra-Microbalance UYA....3
Ultra-Microbalance UYA/F....5
Microbalances MYA....7
Microbalances MYA/P....9
Microbalances MYA/F....11
Analytical balances XA/Y....13
Analytical balances AS/Y....16
Analytical balances XA/X....18
Analytical balances AS/X....21
Analytical balances AS....23
Precision balances PS/Y....25
Precision balances WLY....26
Precision balances APP/Y....30
Precision balances PS/X....31
Precision balances PS/C1....32
Precision balances PS/C2....33
Precision balances APP/C....34
Precision balances WLC....35
Precision balances WLC/C/2....37
Precision balances WTB....38
Moisture analyzers MAX....39
Moisture analyzers MAC....40
Moisture analyzers MAC/2....41
Carat balances PS....42
Carat balances APS....43
Pharmaceutical balances WLC/C2....44
Pharmaceutical balances PS/X....45
Pharmaceutical balances PS/C1....46
Pharmaceutical balances PS/C2....47
Balances for cereals density PS/X/G....48
Automatic mass comparator AKM-4....49
Automatic mass comparator AKM-2....50
Mass comparators UYA/KO....51
Mass comparators MYA/KO....53
Mass comparators WAY/KO....55
Mass comparators APP/Y/KO....57
Mass comparators WPY/KO....59

UYA ULTRA-MICROBALANCES

UYA is a series of ultra-microbalances designed to meet the high requirements for mass determination with highest accuracy of 0,1 µg and 2 g capacity.
Measurement reliability and accuracy is ensured by internal adjustment/ calibration system.
Microbalances comprise two major components (an electronic module and a precise mechanical measuring system are enclosed separately). Such design eliminates the influence of heat sourcing from instrument's electronics on its mechanical components and eliminates vibration transfer.
All the elements of a microbalance are made of glass and steel which eliminates the influence of electrostatics on weighing process.

- Filling
- Checkweighing
- Percent setup
- Statistics
- Infrared sensors
- GLP procedures

Technical data:

	UYA 2
Max load	2 g
Min load	0,01 mg
Readability	0,1 µg
Repeatability	0,4 µg (to 1g) 0,6 µg (1g÷2g)
Linearity	±0,5 µg
Eccentric load deviation	1,5 µg
Sensitivity offset	$1,5 \times 10^{-6} \times Rt$
Sensitivity temperature drift	1×10^{-6} / °C × Rt
Sensitivitytime drift	1×10^{-6} / Rok × Rt
Minimum weight (USP)	1,2 mg
Minimum weight (U = 1%, k = 2)	0,08 mg
Pan size	ø 16 mm
Weighing chamber dimensions	ø 90 × 90 mm
Stabilization time	10-20 s
Adjustment / Calibration	automatic (internal)
Interface	2×USB, 2×RS 232, Ethernet, 2in/2out (digital)
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A
Display	5,7" touch screen
Ambient conditions:	
Working temperature	+18 ° ÷ +30 °C
Change rate of working temperatures	±0,5 °C/8h
Atmospheric humidity	45% ÷ 65%
Change rate of atmospheric humidity	±5%/8h

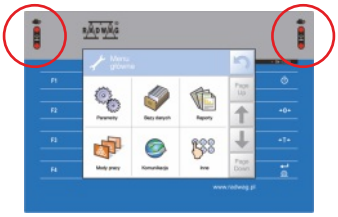
Rt - net weight

Electronic level indicator

- ALARM function
- graphic level indicator
- programmable acceptable tilts

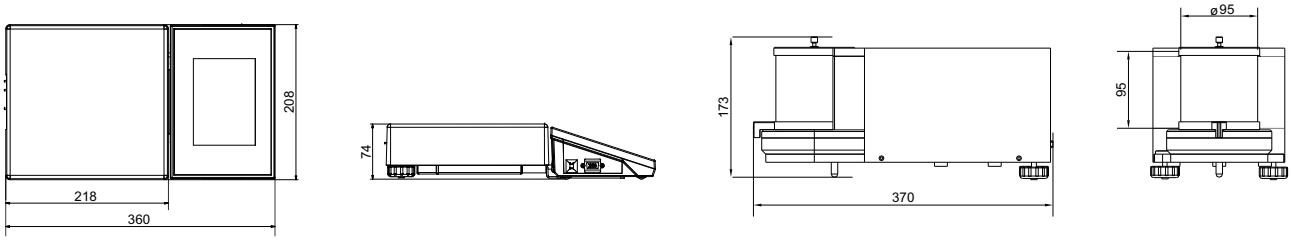
Infrared proximity sensors

- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment



Additional equipment:

Anti vibration table for microbalance	Ambient conditions module
Profesional weighing table	Additional LCD display "WD-3/01/Y"
Kafka thermal printer	PC keyboard
Impact Epson printer	Power adapter with battery and charger ZR-02
Label printer Citizen	Mass standard
Anti draft shield for microbalances	Antistatic cable
"Tare" and "Print" foot button	Bar code scanner
"PW-WIN" computer software	Cable RS 232 (balance - Kafka printer) "P0136"
"RAD-KEY" computer software	Cable RS 232 (balance - computer) "P0108"
"REC-FS" computer software	Cable RS 232 (balance - Epson, Citizen printer) "P0151"
Antistatic ionizer DJ-03	



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UYA ULTRA-MICROBALANCES

UYA is a series of ultra-microbalances designed to meet the high requirements for mass determination with highest accuracy of 0,1 µg and 2 g capacity.
Measurement reliability and accuracy is ensured by internal adjustment/ calibration system.
Microbalances comprise two major components (an electronic module and a precise mechanical measuring system are enclosed separately). Such design eliminates the influence of heat sourcing from instrument's electronics on its mechanical components and eliminates vibration transfer. All the elements of a microbalance are made of glass and steel which eliminates the influence of electrostatics on weighing process.

- Filling
- Checkweighing
- Percent setup
- Statistics
- Infrared sensors
- GLP procedures

Technical data:

	UYA 3/F
Max load	3 g
Min load	0,01 mg
Readability	0,1 µg / 1 µg (1 µg for 2g÷3g)
Repeatability	0,25 µg (to 2g) 0,7 µg (2g÷3g)
Linearity	±0,5 µg
Eccentric load deviation	1,5 µg
Sensitivity offset	$1,5 \times 10^{-6} \times Rt$
Sensitivity temperature drift	$1 \times 10^{-6} / °C \times Rt$
Sensitivity time drift	$1 \times 10^{-6} / Rok \times Rt$
Minimum weight (USP)	0,75 mg
Minimum weight (U = 1%, k = 2)	0,05 mg
Pan size	ø 72 mm
Filter dimensions	ø 50÷70 mm
Weighing chamber dimensions	ø118 × 35 mm
Stabilization time	10-20 s
Adjustment / Calibration	automatic (internal)
Interface	2×USB, 2×RS 232, Ethernet, 2in/2out (digital)
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A
Display	5,7" touch screen
Ambient conditions:	
Working temperature	+18 ° ÷ +30 °C
Change rate of working temperatures	±0,5 °C/8h
Atmospheric humidity	45% ÷ 65%
Change rate of atmospheric humidity	±1%/8h

Rt - net weight

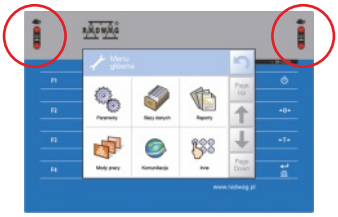
The specified parameter values are reference ones for calculation of measurement uncertainty. The actual measurements are influenced by ambient conditions on workstation and balance settings.

Electronic level indicator

- ALARM function
- graphic level indicator
- programmable acceptable tilts

Infrared proximity sensors

- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment



A new pan for weighing filters

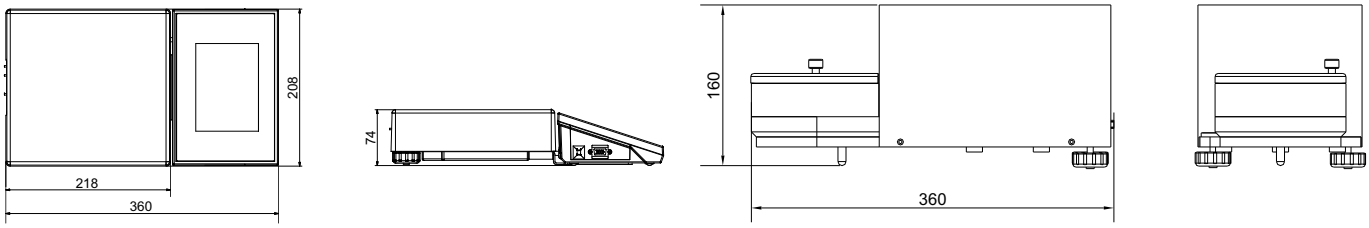
Special design of the weighing pan enables easy placing and removing of a filter. Small surface of the pan decreases possible errors occurring in measuring process.

Autotest

- autotest GLP (fully automatic evaluation of repeatability and error of indication)
- autotest FILTER (fully automatic optimization of measurement result stabilization settings (value release settings)

Additional equipment:

Anti vibration table for microbalance	Ambient conditions module
Profesional weighing table	Additional LCD display "WD-3/01/Y"
Kafka thermal printer	PC keyboard
Impact Epson printer	Power adapter with battery and charger ZR-02
Label printer Citizen	Mass standard
Anti draft shield for microbalances	Antistatic cable
"Tare" and "Print" foot button	Bar code scanner
"PW-WIN" computer software	Cable RS 232 (balance - Kafka printer) "P0136"
"RAD-KEY" computer software	Cable RS 232 (balance - computer) "P0108"
"REC-FS" computer software	Cable RS 232 (balance - Epson, Citizen printer) "P0151"
Antistatic ionizer DJ-03	



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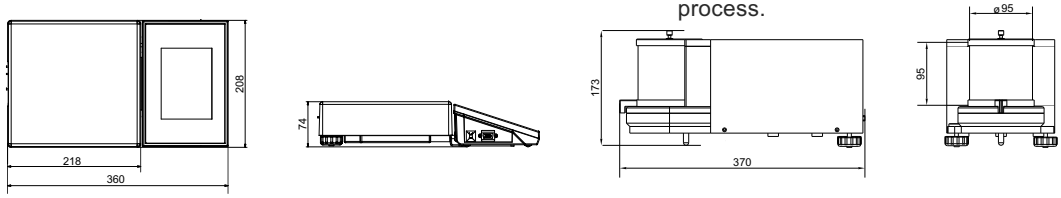
MYA MICROBALANCES

MYA series of microbalances is designed to meet the highest requirements for determination of mass. Measurement reliability and accuracy are maintained by system of automatic internal adjustment / calibration.
Microbalances comprise two major components (an electronic module and a precise mechanical measuring system are enclosed separately). Such design eliminates the influence of heat sourcing from instrument's electronics on its mechanical components and additionally protects it from shocks and vibrations caused by users operating the instrument.
All the elements of a microbalance are made of glass and steel which eliminates the influence of electrostatics on weighing process.

- Filling
- Checkweighing
- Percent setup
- Statistics
- Air Buoyancy Correction
- Infrared sensors
- GLP procedures

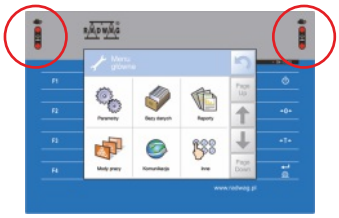


Electronic level indicator

- ALARM function
- graphic level indicator
- programmable acceptable tilts

Infrared proximity sensors

- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment



Technical data:

	MYA 2	MYA 5	MYA 11	MYA 21	MYA 31
Max load	2 g	5 g	11 g	21 g	31 g
Readability	1 µg	1 µg	1 µg	1 µg	1 µg
Tare range	- 2 g	- 5 g	- 11 g	- 21 g	- 31 g
Repeatability *	1 µg	2,1 µg	2,1 µg	2,1 µg	2,1 µg
Linearity	±3 µg	±5 µg	±6 µg	±7 µg	±7 µg
Eccentric load deviation	3 µg	5 µg	6 µg	7 µg	7 µg
Sensitivity offset	$1,5 \times 10^{-6} \times Rt$	$2 \times 10^{-6} \times Rt$	$3 \times 10^{-6} \times Rt$	$4 \times 10^{-6} \times Rt$	$5 \times 10^{-6} \times Rt$
Sensitivity temperature drift	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt
Sensitivity stability	1×10^{-6} / Rok × Rt	1×10^{-6} / Rok × Rt	1×10^{-6} / Rok × Rt	1×10^{-6} / Rok × Rt	1×10^{-6} / Rok × Rt
Minimum weight (USP)	3 mg	6,3 mg	6,3 mg	6,3 mg	6,3 mg
Minimum weight (U = 1%, k = 2)	0,2 mg	0,4 mg	0,4 mg	0,4 mg	0,4 mg
Pan size	ø 16 mm	ø 26 mm	ø 26 mm	ø 26 mm	ø 26 mm
Weighing chamber dimensions	ø 90 × 90 mm				
Stabilization time	5 s				
Adjustment/Calibration	automatic (internal)				
Display	5,7" touch screen				
Interface	2×USB, 2×RS 232, Ethernet, 2in/2out (digital)				
Ambient conditions					
Working temperature	+18 ° - +30 °C				
Change rate of working temperature	±0,3 °C/h (±1 °C/8h)				
Atmospheric humidity	45% ÷ 65%				
Change rate of atmospheric humidity	±1%/h (±4%/8h)				

Rt - net weight

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Additional equipment:

Antivibration table for microbalance	Antistatic ionizer DJ-03
Profesional weighing table	Ambient conditions module
Kafka thermal printer	Additional LCD display "WD-3/01/Y"
Impact Epson printer	PC keyboard
Label printer Citizen	Power adapter with battery and charger ZR-02
Anti draft shield for microbalances	Mass standard
Air density determination kit	Antistatic cable
Tare and "Print" foot button	Bar code scanner
PW-WIN computer software	Cable RS 232 (scale - Kafka printer) "P0136"
RAD-KEY computer software	Cable RS 232 (scale - computer) "P0108"
REC-FS computer software	Cable RS 232 (scale, Epson, Citizen printer) "P0151"

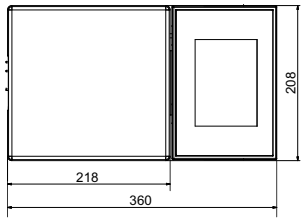
MYA/P Microbalances for calibration of pipettes

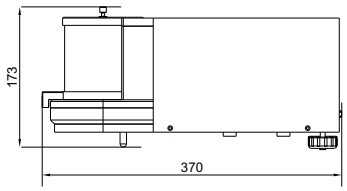
A - evapouration ring
B - calibration vessel

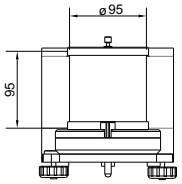
- Filling
- Checkweighing
- Percent setup
- Statistics
- Air Buoyancy Correction
- Infrared sensors
- GLP procedures
- Pipette calibration

MYA series of microbalances are designed to meet the highest requirements of mass measurements. Balance's weighing chamber is adjusted to calibration of piston pipettes. The non-central location of the opening in chamber's top cover facilitates pipette insertion. Measurement reliability and accuracy are maintained by system of automatic internal adjustment / calibration.
Microbalances consist of two major parts (an electronic system and a precise mechanical measurement system in a separate enclosure). This solution eliminates the temperature influence and separates from shocks and vibrations caused by users operating software.
All the elements of the balance are made of glass and steel which eliminates the influence of electrostatics on the weighing process.

Additional adapter for pipettes calibration is a standard equipment of the balance.







Technical data:

	MYA 21/P
Max load	21 g
Readability	1 µg
Repeatability *	2,1 µg (to 2g) 2,5 µg (2g÷5g) 3,1 µg (5g÷11g) 3,8 µg (11g÷21g)
Linearity	±7 µg
Eccentric load deviation	7 µg
Sensitivity offset	4 × 10-6 × Rt
Sensitivity temperature drift	1 × 10-6 / °C × Rt
Sensitivity time drift	1 × 10-6 / Rok × Rt
Minimum weight (USP)	6,3 mg
Minimum weight (U = 1%, k = 2)	0,4 mg
Pan size	ø 26 mm
Weighing chamber dimensions	ø 90 × 90 mm
Stabilization time	5 s
Adjustment / Calibration	automatic (internal)
Working temperature	+18 ° - +30 °C
Interface	2×USB, 2×RS 232, Ethernet, 2in/2out (digital)
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A
Display	5,7" touch screen

Rt - net weight

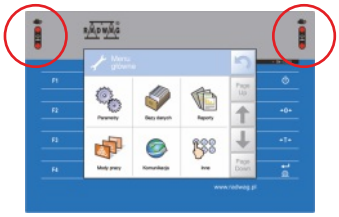
* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Electronic level indicator

- ALARM function
- graphic level indicator
- programmable acceptable tilts

Infrared proximity sensors

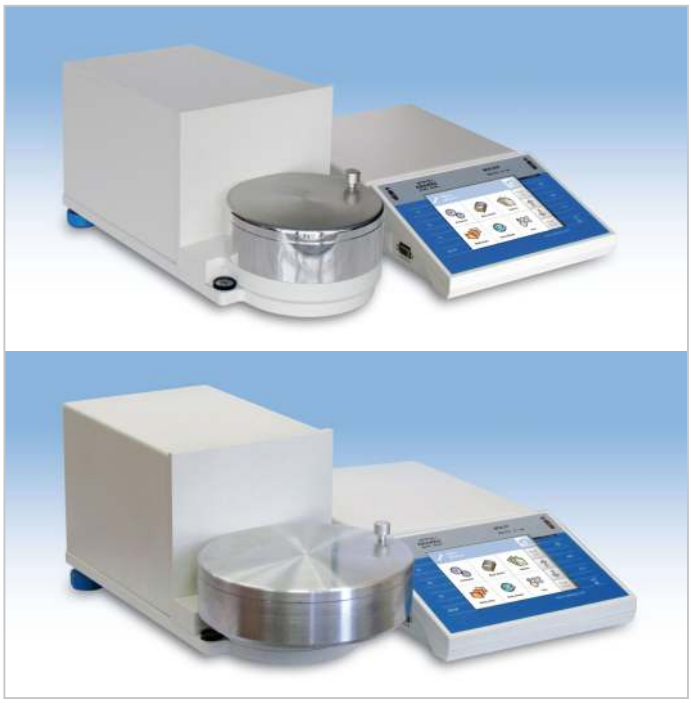
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment



Additional equipment:

Antivibration table for microbalance	Antistatic ionizer DJ-03
Profesional weighing table	Ambient conditions module
Kafka thermal printer	Additional LCD display "WD-3/01/Y"
Impact Epson printer	PC keyboard
Label printer Citizen	Power adapter with battery and charger ZR-02
Anti draft shield for microbalances	Mass standard
Air density determination kit	Antistatic cable
Tare and "Print" foot button	Bar code scanner
PW-WIN computer software	Cable RS 232 (scale - Kafka printer) "P0136"
RAD-KEY computer software	Cable RS 232 (scale - computer) "P0108"
REC-FS computer software	Cable RS 232 (scale, Epson, Citizen printer) "P0151"
Pipettes computer software	

MYA/F MICROBALANCES



MYA series of microbalances is designed to meet the highest requirements for determination of mass. Measurement reliability and accuracy are maintained by system of automatic internal adjustment / calibration.

Microbalances comprise two major components (an electronic module and a precise mechanical measuring system are enclosed separately). Such design eliminates the influence of heat sourcing from instrument's electronics on its mechanical components and additionally protects it from shocks and vibrations caused by users operating the instrument. All the elements of a microbalance are made of glass and steel which eliminates the influence of electrostatics on weighing process.

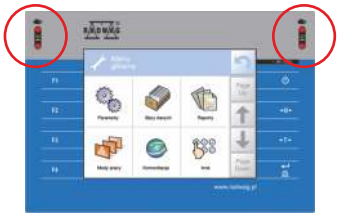
- Filling
- Checkweighing
- Percent setup
- Statistics
- Infrared sensors
- GLP procedures

Electronic level indicator

- ALARM function
- graphic level indicator
- programmable acceptable tilts

Infrared proximity sensors

- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment



Technical data:

	MYA 5/F	MYA 5/F1
Max load	5 g	
Readability	1 µg	
Repeatability	2 µg (< 2 g); 2,5 µg (2 g ÷ 5 g)	
Linearity	±5 µg	
Eccentric load deviation	5 µg	
Sensitivity offset	$2 \times 10^{-6} \times Rt$	
Sensitivity temperature drift	1×10^{-6} / °C × Rt	
Sensitivity stability	1×10^{-6} / Rok × Rt	
Minimum weight (USP)	6,3 mg	
Minimum weight (U = 1%, k = 2)	0,4 mg	
Pan size	ø 100 mm	ø 160 mm
Weighing chamber dimensions	ø 118 × 35 mm	ø 168 × 35 mm
Stabilization time	5 s	
Adjustment / Calibration	automatic (internal)	
Working temperature	+18 ° - +30 °C	
Interface	2×USB, 2×RS 232, Ethernet, 2in/2out (digital)	
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A	
Display	5,7" touch screen	

Rt - net weight

* - repeatability expressed as standard deviation from 10 weighing cycles

Additional equipment:

Antivibration table for microbalance	Antistatic ionizer DJ-03
Profesional weighing table	Ambient conditions module
Kafka thermal printer	Additional LCD display "WD-3/01/Y"
Impact Epson printer	PC keyboard
Label printer Citizen	Power adapter with battery and charger ZR-02
Anti draft shield for microbalances	Mass standard
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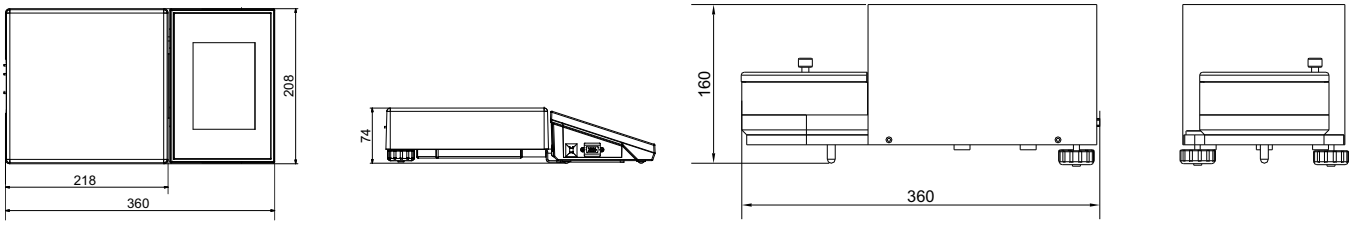
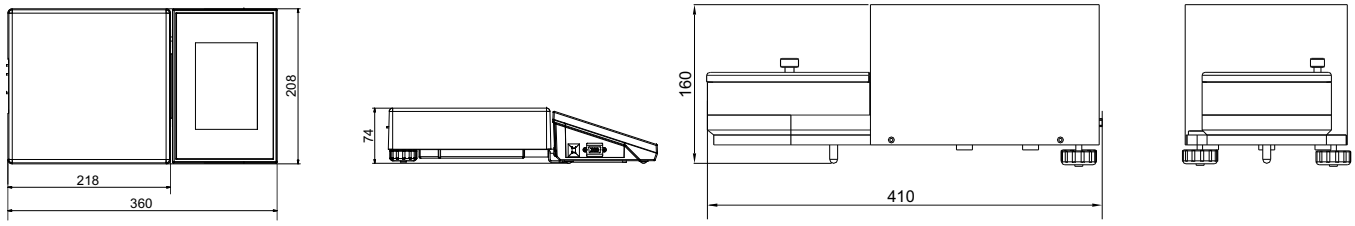
F version



F1 version



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ANALYTICAL BALANCES XA/Y

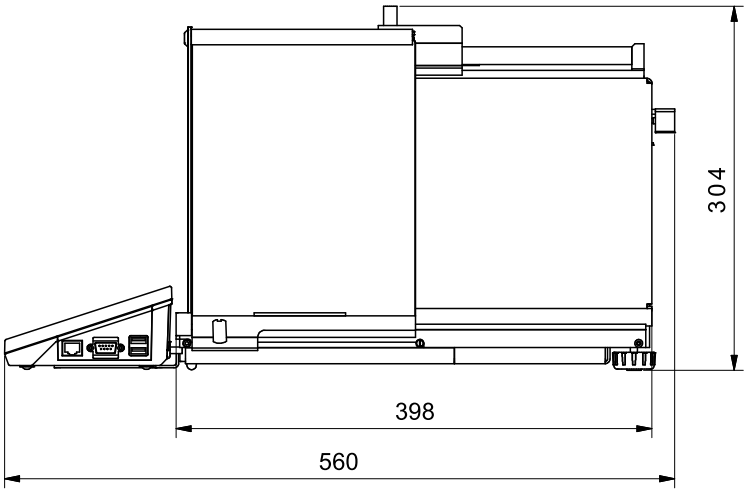
XA/Y series of analytical balances feature the new electronics and modern technology.

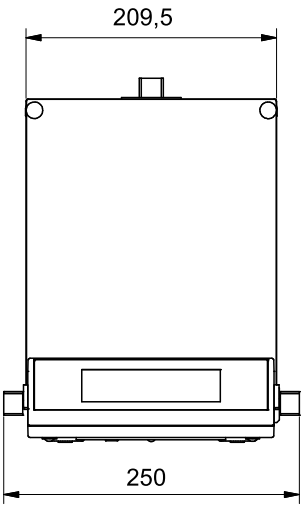
Measurement reliability and accuracy are maintained by automatic internal adjustment / calibration system triggered by time flow or temperature conditions.

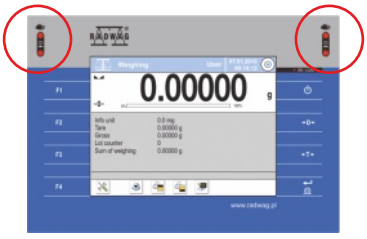
XA/Y series of balances provide spacious weighing chamber with automatically opened doors. XA/Y series features a touch panel covering a 5.7” colour graphic display, which boosts balance's operation. The balances are designed on new software version providing intuitive operation!

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation
- Air buoyancy correction
- Pipette calibration **
- GLP procedures
- Infrared sensors

** function only available as an extra option of the software







Infrared proximity sensors

- PRINT function
- TARE function
- opening weighing chambers
- sensors’ sensitivity adjustment

Data exchange through USB storage devices

- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out

Technical data:

	XA 52/Y	XA 110/Y	XA 210/Y	XA 82/220/Y
Max capacity	52 g	100 g	210 g	82/220 g
Min load	1 mg	1 mg	1 mg	1 mg
Readability	0,01 mg	0,01 mg	0,01 mg	0,01/0,1 mg
Tare range	-52 g	-100 g	-210 g	-220 g
Working temperature	+10° - +50°C			
Repeatability *	0,025 mg (to 20g) 0,03 mg (20g÷50g)	0,02 mg (do 20g) 0,025 mg (20g÷60g) 0,04 mg (60g÷110g)	0,02 mg (do 20g) 0,025 mg (20g÷60g) 0,04 mg (60g÷110g) 0,06 mg (110g÷210g)	0,025 mg (to 60g) 0,04 mg (60÷82g) 0,08 mg (82g÷220g)
Linearity	±0,06 mg	±0,07 mg	±0,1 mg	±0,06/0,2 mg
Eccentric load deviation	0,06 mg	0,07 mg	0,1 mg	0,2 mg
Sensitivity offset	$2 \times 10^{-6} \times Rt$			
Sensitivity temperature drift	$1 \times 10^{-6} / °C \times Rt$			
Sensitivity time drift	$1 \times 10^{-6} / Rok \times Rt$			
Minimum weight (USP)	60 mg			
Minimum weight (U = 1%, k = 2)	4 mg			
Stabilization time	5 s	5 s	5 s	5/3 s
Interface	2×USB, RS 232, Ethernet, 2in/2out (digital)			
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A			
Adjustment / Calibration	internal (automatic)			
Display	5,7" touch screen			
Pan size	ø 85 mm			
Net weight/Gross weight	12,6 / 16,3 kg	12,6 / 16,3 kg	12,7 / 16,4 kg	12,7 / 16,4 kg
Packaging size	715×385×485 mm			

Rt - net weight

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Technical data:

	XA 100/Y	XA 160/Y	XA 220/Y	XA 310/Y
Max capacity	100 g	160 g	220 g	10 g
Min load	10 mg	10 mg	10 mg	10 mg
Readability	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Tare range	-100 g	-160 g	-220 g	-310 g
Working temperature	+10° - +50°C			
Repeatability *	0,08 mg	0,08 mg	0,08 mg	0,08 mg (to 220g) 0,2 mg (220g÷310g)
Linearity	±0,2 mg	±0,2 mg	±0,2 mg	±0,3 mg
Eccentric load deviation	0,2 mg	0,2 mg	0,2 mg	0,3 mg
Sensitivity offset	$2 \times 10^{-6} \times Rt$			
Sensitivity temperature drift	$1 \times 10^{-6} / °C \times Rt$			
Sensitivity time drift	$1 \times 10^{-6} / Rok \times Rt$			
Minimum weight (USP)	240 mg			
Minimum weight (U = 1%, k = 2)	16 mg			
Stabilization time	3 s			
Interface	2×USB, RS 232, Ethernet, 2in/2out (digital)			
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A			
Adjustment / Calibration	internal (automatic)			
Display	5,7" touch screen			
Pan size	ø 100 mm			
Net weight/Gross weight	12,6 / 16,3 kg	12,6 / 16,3 kg	12,7 / 16,4 kg	12,7 / 16,4 kg
Packaging size	715×385×485 mm			

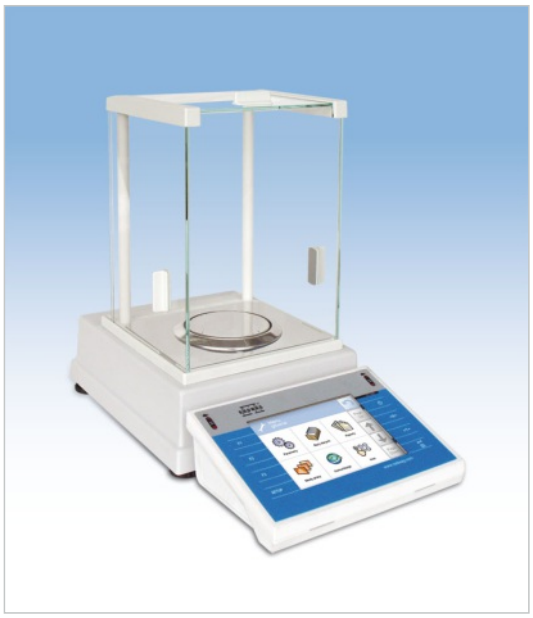
Rt - net weight

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Additional equipment:

Anti vibration table for laboratory balances	Ambient conditions module
Professional weighing table	Density determination kit
Kafka thermal printer	LCD display „WD-3/01/Y”
Epson impact printer	PC keyboard
Citizen label printer	Additional adapter for pipettes calibration
Holders for laboratory vessels	Power adapter ZR-02
Air density determination kit	Mass standard
Foot tare and print buttons	Antistatic cable
PW-WIN 2004 computer software	Barcode scanner
RAD-KEY 2000 computer software	RS 232 cable: scale - thermal printer: P0136
Pipettes computer software	RS 232 cable: scale - "Epson/Citizen" printer: P0151
Antistatic ionizer DJ-02	RS 232 cable: scale - computer: P0108

ANALYTICAL BALANCES AS/Y

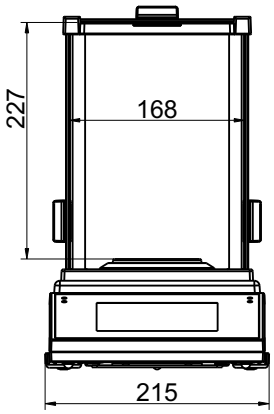


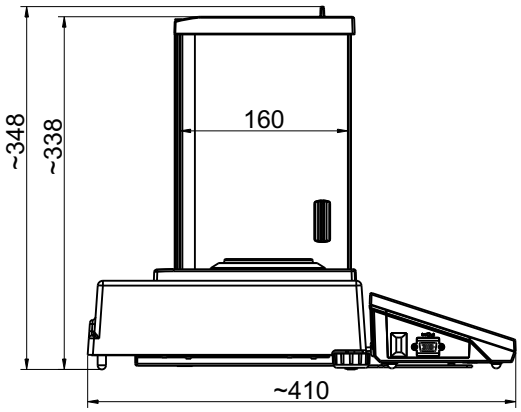
Analytical balances series AS/Y are designed with application of new electronic modules and up-to-date technological solutions.

Measurement reliability and accuracy is assured by system of internal adjustment / calibration triggered by time flow or temperature conditions.

Balances are operated through a modern electronic module touch panel covering a 5,7" colour graphic display. Y scales feature new version of implemented software ensuring easy and intuitive operation!

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation
- Air buoyancy correction
- GLP procedures
- Under-hook weighing
- Infrared sensors





Technical data:

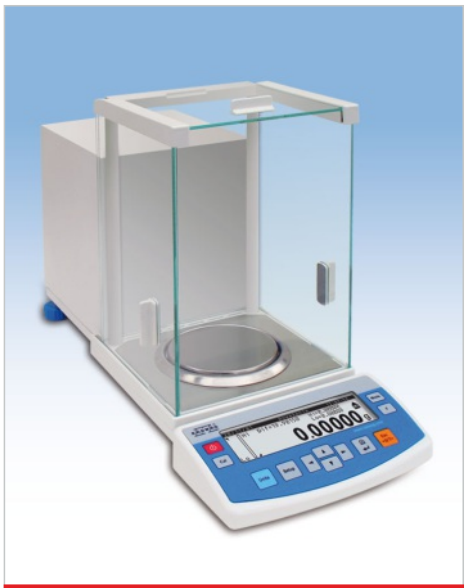
	AS 110/Y	AS 160/Y	AS 220/Y	AS 310/Y
Max capacity	110 g	160 g	220 g	310 g
Minimal load	10 mg	10 mg	10 mg	10 mg
Readability	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Tare range	-110 g	-160 g	-220 g	-310 g
Working temperature	+10° - +45°C			
Repeatability *	0,1 mg	0,1 mg	0,1 mg	0,1 mg (220g) 0,2 mg (220g÷310g)
Linearity	± 0,2 mg	± 0,2 mg	± 0,2 mg	± 0,3 mg
Stabilization time	2 s	2 s	2 s	2 s
Sensitivity drift	2 ppm/°C in temperature +10° - +35°C			
Interface	2×USB, RS 232, Ethernet			
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A			
Adjustment / Calibration	internal (automatic)			
Pan size	⌀ 85 mm	⌀ 85 mm	⌀ 85 mm	⌀ 85 mm
Display	5,7" touch panel			

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Additional equipment:

Antivibration table for laboratory balances	Additional LCD display "WD-3/01/Y"
Profesional weighing table	PC keyboard
Kafka thermal printer	Additional adapter for pipettes calibration
Dot matrix Epson printer	Power adapter with battery and charger ZR-02
Label printer Citizen	Rack for under hook weighing
Holders for glass vessels	Standard mass
Tare and "Print" foot button	Antistatic cable
PW-WIN computer software	Bar code scanner
RAD-KEY computer software	Cable RS 232 (scale - Kafka printer) "P0136"
Antistatic ionizer DJ-02	Cable RS 232 (scale - computer) "P0108"
Ambient conditions module	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
Density determination kit	

ANALYTICAL BALANCES XA/X



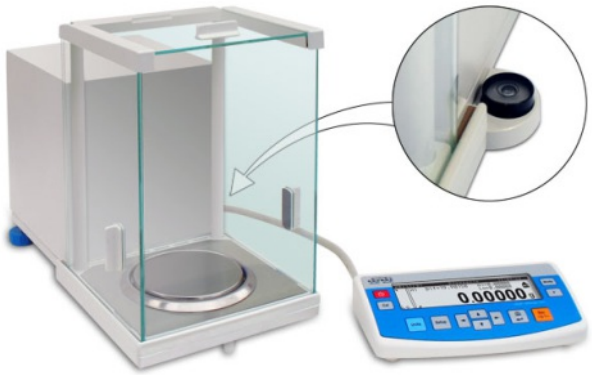
XA/X series- professional level analitycal balances

XA/X balances feature big backlit graphic display with extended menu, 12-keys membrane keyboard, big weighing chamber with sliding top and side glass doors.
Balance accuracy is guaranteed by automatic internal adjustment/calibration triggered by time flow or temperature conditions.

Balance's indicator is detachable from the weighing chamber, and this solution considerably reduces vibrations transferred to weighing chamber and decreases instrument's dimensions.

XA/X series enables generating GLP procedures, feature RS 232 interface and slot for PS/2 keyboard. Balances enable connecting additional display and possibility of weighing loads outside the main weighing platform (so called under-hook weighing).

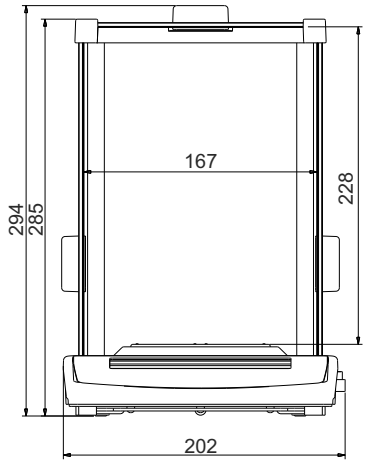
- **New electronics and technological solutions!**
- **New intuitive operation and user friendly software of balances!**

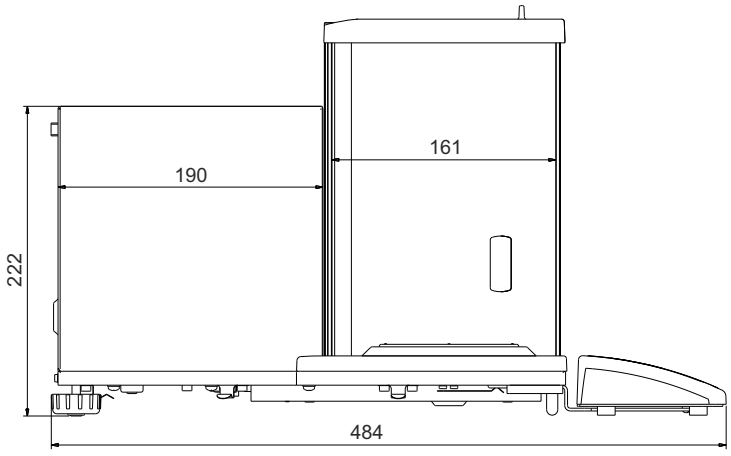


- **Detachable weighing indicator- improves ergonomics of operation!**
- **Level indicator located in a covenient, easily accessible place for a user!**

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation
- Air buoyancy correction
- Pipette calibration **
- GLP procedures
- Under-hook weighing

** function only available as an extra option of the software





Technical data:

	XA 52/X	XA 110/X	XA 82/220/X
Max capacity	52 g	100 g	82/220 g
Min load	1 mg	1 mg	1 mg
Readability	0,01 mg	0,01 mg	0,01/0,1 mg
Tare range	-52 g	-100 g	-220 g
Working temperature		+10° - +50°C	
Repeatability *	0,025 mg (to 20g) 0,03 mg (20g÷50g)	0,02 mg (do 20g) 0,025 mg (20g÷60g) 0,04 mg (60g÷110g)	0,025 mg (to 60g) 0,04 mg (60÷82g) 0,08 mg (82g÷220g)
Linearity	±0,06 mg	±0,07 mg	±0,06/0,2 mg
Eccentric load deviation	0,06 mg	0,07 mg	0,2 mg
Sensitivity offset		$2 \times 10^{-6} \times Rt$	
Sensitivity temperature drift		$1 \times 10^{-6} / °C \times Rt$	
Sensitivity stability		$1 \times 10^{-6} / a \times Rt$	
Minimum weight (USP)		60 mg	
Minimum weight (U = 1%, k = 2)		4 mg	
Stabilization time	5 s	5 s	5/3 s
Interface		RS 232	
Power supply		110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A	
Adjustment / Calibration		internal (automatic)	
Pan size		ø 85 mm	
Net weight/Gross weight		9/12 kg	
Packaging size		685×405×495 mm	

Rt - net weight

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Technical data:

	XA 100/X	XA 160/X	XA 220/X	XA 310/X
Max capacity	100 g	160 g	220 g	10 g
Min load	10 mg	10 mg	10 mg	10 mg
Readability	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Tare range	-100 g	-160 g	-220 g	-310 g
Working temperature		+10° - +50°C		
Repeatability *	0,08 mg	0,08 mg	0,08 mg	0,08 mg (to 220g) 0,2 mg (220g÷310g)
Linearity	±0,2 mg	±0,2 mg	±0,2 mg	±0,3 mg
Eccentric load deviation	0,2 mg	0,2 mg	0,2 mg	0,3 mg
Sensitivity offset		$2 \times 10^{-6} \times Rt$		
Sensitivity temperature drift		$1 \times 10^{-6} / °C \times Rt$		
Sensitivity time drift		$1 \times 10^{-6} / Rok \times Rt$		
Minimum weight (USP)		240 mg		
Minimum weight (U = 1%, k = 2)		16 mg		
Stabilization time		3 s		
Interface		RS 232		
Power supply		110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A		
Adjustment / Calibration		internal (automatic)		
Pan size		ø 100 mm		
Net weight/Gross weight		9/12 kg		
Packaging dimensions		685×405×495 mm		

Rt - net weight

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

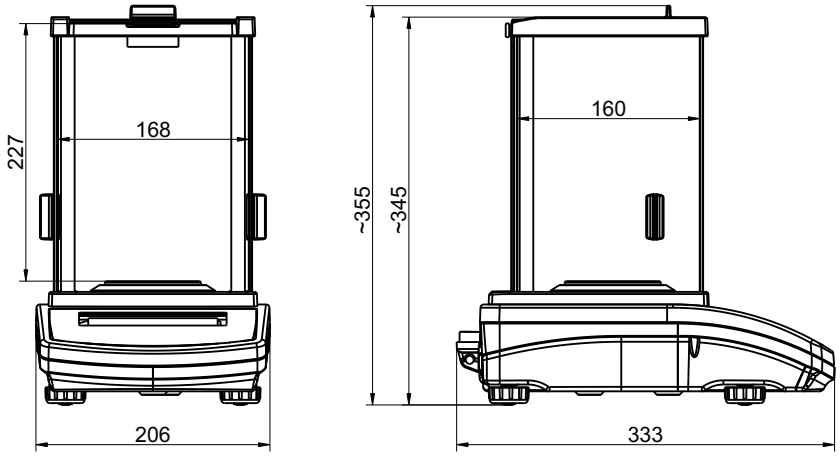
Additional equipment:

Anti vibration table for laboratory balances	Ambient conditions module
Profesional weighing table	Density determination kit
Kafka thermal printer	Additional LCD display "WD-3/01"
Impact Epson printer	PC keyboard
Label printer Citizen	Additional adapter for pipettes calibration
Holders for glass vessels	Power adapter with battery and charger ZR-02
Air density determination kit	Mass standard
Tare and "Print" foot button	Antistatic cable
PW-WIN computer software	Cable RS 232 (balance - Kafka printer) "P0136"
RAD-KEY computer software	Cable RS 232 (balance - computer) "P0108"
PIPETTES computer software	Cable RS 232 (balance - Epson , Citizen printer) "P0151"
Antistatic ionizer DJ-02	

ANALYTICAL BALANCES AS/X

Balances series AS/X represent standard level of analytical balances. They feature backlit graphic display. Measurement accuracy and reliability is determined by automatic internal adjustment/calibration system, triggered by time flow and temperature conditions.
The highlight of AS/X series is generation of GLP procedure in a form of printout from standard or custom configured report from balance adjustment/calibration process.
User accesses balance's weighing pan through a big weighing chamber with sliding top and side glass doors. Each balance series AS/X features RS 232 output and additional display slot.
AS/X series offers the possibility of weighing loads outside the main weighing platform (i.e. under hook weighing). This means of measurement is an alternative for weighing loads with non-standard dimensions and shapes and those create magnetic field. Under hook weighing is also applied for density determination procedures.

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation
- Air buoyancy correction
- GLP procedures
- Under-hook weighing



Technical data:

	AS 110/X	AS 160/X	AS 220/X	AS 310/X
Max capacity	110 g	160 g	220 g	310 g
Minimal load	10 mg	10 mg	10 mg	10 mg
Readability	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Tare range	-110 g	-160 g	-220 g	-310 g
Working temperature	+10° ÷ +45°C			
Stabilization time	3,5 s			
Repeatability *	0,1 mg	0,1 mg	0,1 mg	0,1 mg (220g) 0,2 mg (220g÷310g)
Linearity	± 0,2 mg	± 0,2 mg	± 0,2 mg	± 0,3 mg
Sensitivity drift	2 ppm/°C in temperature +10° ÷ +35°C			
Interface	RS 232			
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A			
Adjustment / Calibration	internal (automatic)			
Pan size	ø 85 mm	ø 85 mm	ø 85 mm	ø 85 mm
Net weight / Gross weight	5,5/8,2 kg	5,6/8,3 kg	5,6/8,3 kg	5,6/8,3 kg
Packaging dimensions	495 × 385 × 515 mm			

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

Additional equipment:

Antivibration table for laboratory balances	Density determination kit
Profesional weighing table	Additional LCD display "WD-3/01"
Kafka thermal printer	PC keyboard
Dot matrix Epson printer	Additional adapter for pipettes calibration
Label printer Citizen	Power adapter with battery and charger ZR-02
Holders for glass vessels	Rack for under hook weighing
Tare and "Print" foot button	Standard mass
PW-WIN computer software	Antistatic cable
RAD-KEY computer software	Cable RS 232 (scale - Kafka printer) "P0136"
REC-FS computer software	Cable RS 232 (scale - computer) "P0108"
Antistatic ionizer DJ-02	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
Ambient conditions module	

ANALYTICAL BALANCES AS

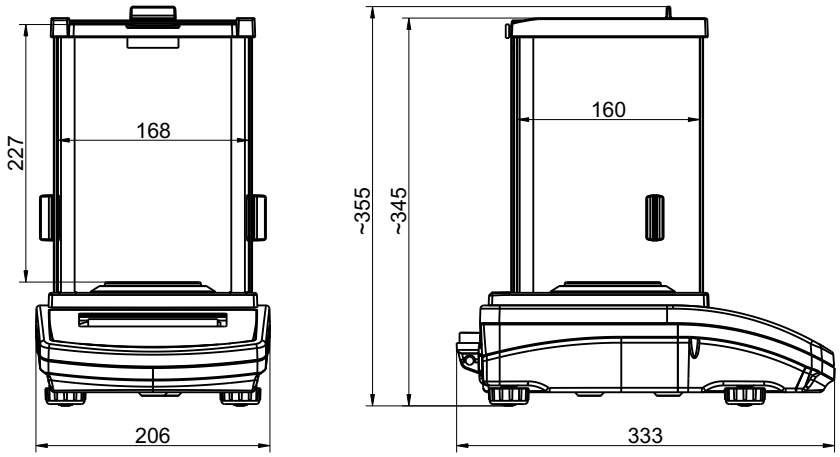
Balances series AS represent standard level of analytical balances. They feature backlit LCD display. Accuracy and realibility of measurement are determined by internal automatic adjustment/calibration system triggered bytime flow or temperature conditions.
Analytical series AS is offered with capacities: 110, 160, 220, 310 g with readability of 0,1 mg, 60/220g with readability 0,1/0,01 mg and 100 g with readability 0,01 mg.
GLP procedure in AS series has a form of report from balance adjustment/calibration process, and its format is non-modifiable. User has access to a spacious weighing chamber with sliding side and top glass doors. Each balancefeatures RS 232 output and additional display slot.

As series offers the possibility of weighing loads under the weighing pan, i.e. under-hook weighing. In such case the load is weighed under the pan. It is an alternative for loads with non-standard dimensions, shapes and loads which create magnetic field. Under-hook weighing is also applied for density determination of materials.

Parts counting

Density determination

Percent setup



Technical data:

	AS 60/C/2	AS 60/220/C/2	AS 110/C/2	AS 160/C/2	AS 220/C/2	AS 310/C/2 **
Max capacity	60 g	60 g/220 g	110 g	160 g	220 g	310 g
Minimal load	1 mg	1 mg	10 mg	10 mg	10 mg	10 mg
Readability	0,01 mg	0,01 mg/0,1 mg	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Tare range	-60 g	-220 g	-110 g	-160 g	-220 g	-310 g
Repeatability *	0,04 mg	0,04 mg / 0,1 mg	0,1 mg	0,1 mg	0,1 mg	0,1 mg
Linearity	± 0,07 mg	± 0,07 mg / 0,2 mg	± 0,2 mg	± 0,2 mg	± 0,2 mg	± 0,3 mg
Pan size	ø 70 mm	ø 70 mm	ø 85 mm	ø 85 mm	ø 85 mm	ø 85 mm
Stabilization time	6 s	6/3,5 s	3,5 s	3,5 s	3,5 s	3,5 s
Sensitivity drift	2 ppm/°C in temperature +10° - +35°C					
Working temperature	+10° - +45°C					
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A					
Adjustment / Calibration	internal (automatic)					
Display	LCD (backlit)					
Net weight/Gross weight	5,5/8,2 kg	5,6/8,3 kg	5,5/8,2 kg	5,6/8,3 kg	5,6/8,3 kg	5,6/8,3 kg
Packaging size	495×385×515 mm					

* Repeatability is expressed as a standard deviation from 10 weighing cycles.

** non-verified balance

Additional equipment:

Antivibration table for laboratory balances	Density determination kit
Profesional weighing table	Additional LCD display "WD-3/01"
Kafka thermal printer	Additional adapter for pipettes calibration
Dot matrix Epson printer	Power adapter with battery and charger ZR-02
Holders for glass vessels	Rack for under hook weighing
Air density determination kit	Standard mass
PW-WIN computer software	Antistatic cable
RAD-KEY computer software	Cable RS 232 (scale - Kafka printer) "P0136"
REC-FS computer software	Cable RS 232 (scale - computer) "P0108"
Antistatic ionizer DJ-02	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
Ambient conditions module	

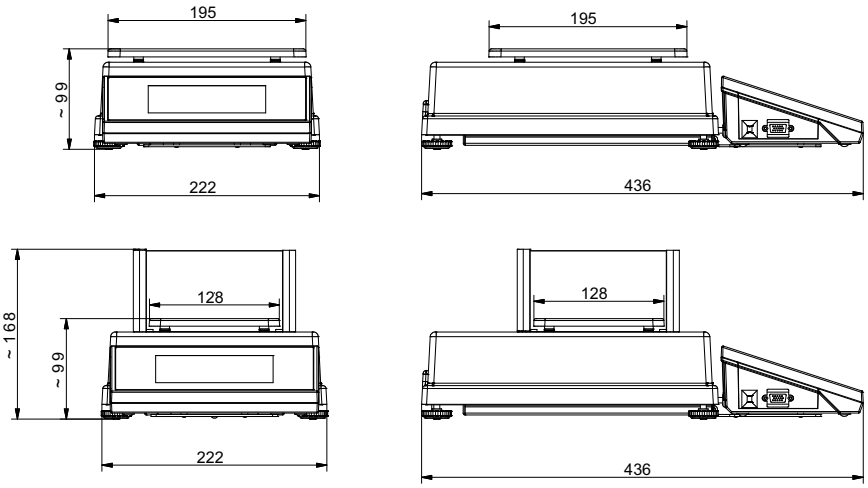
PRECISION BALANCES PS/Y

Precision balances series PS/Y are the response for the growing market demands concerning simple operation and maximum automation of the weighing process.

Measurement reliability and accuracy is assured by internal automatic adjustment / calibration system triggered by time flow or temperature conditions.

Balances feature a new electronic module and are operated using a touch panel covering a 5.7" colour graphic display. Y scales have implemented new easily operated software.

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation



Technical data:

	PS 200/2000/Y*	PS 250/Y*	PS 450/Y*	PS 600/Y*	PS 750/Y	PS 1000/Y	PS 1500/Y*	PS 2500/Y*	PS 4500/Y*	PS 6000/Y*	PS 8000/Y**
Max capacity	200/2000 g	250 g	450 g	600 g	750 g	1000 g	1500 g	2500 g	4500 g	6000 g	8000 g
Minimal load	20 mg	20 mg	20 mg	20 mg	20 mg	20 mg	500 mg	500 mg	500 mg	500 mg	500 mg
Readability	1/10 mg	1 mg	1 mg	1 mg	1 mg	1 mg	10 mg	10 mg	10 mg	10 mg	10 mg
Tare range	-2000 g	-250 g	-450 g	-600 g	-750 g	-1000 g	-1500 g	-2500 g	-4500 g	-6000 g	-8000 g
Linearity	±2/10 mg	±2 mg	±2 mg	±3 mg	±3 mg	±3 mg	±20 mg	±20 mg	±20 mg	±30 mg	15 mg
Repeatability	1/10 mg	1 mg	1 mg	1,5 mg	1,5 mg	1,5 mg	10 mg	10 mg	10 mg	15 mg	±20 mg
Pan size	128×128 mm						195×195 mm				
Stabilization time	2 s / 1,5 s	2 s	2 s	2 s	2 s	2 s	1,5 s	1,5 s	1,5 s	1,5 s	1,5 s
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C										
Working temperature	+15 - +30 °C										
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A										
Interface	2xUSB, RS 232, Ethernet, 2inputs / 2 outputs (digital)										
Packaging size	570×325×225 mm										
Display	5,7" touch panel										

*verified balance, ** external calibration

Additional equipment:

Anti vibration table for laboratory balances	Mass standard
Printer Kafka, Epson, Citizen	LCD display WD-3/01/Y
Foot button for tare or print functions	Power adapter with battery and charger ZR-02
Density determination kit for solids and liquids	Power loop output AP2-1 (plastic version)
PC keyboard	Antistatic cable
Anti draft shield	Computer software: PW-WIN, RAD-KEY
Bar code scanner	Cable: P0136, P0151, P0108

RADWAG
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PRECISION BALANCES WLY

Precision balances series WLY are the response for the growing market demands concerning simple operation and maximum automation of the weighing process.

.

WLY series can cooperate with barcode scanners, receipt and label printers, RFID scanners and PC peripherals (mouse, keyboard, USB flash data storage devices).

DESIGN AND FUNCTIONALITY

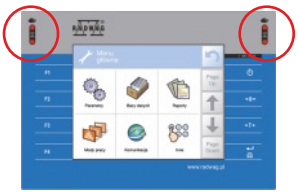
All models of WLY series feature stainless steel weighing pan and a touch panel covering a 5.7" colour graphic display and membrane keyboard. WLY balances can cooperate with an additional weighing platform.

WLY highlights:

- programmable display and function keys
- programmable infrared proximity sensors
- desining custom printouts
- desining text data in display's window

- Parts counting
- Summing function
- Filling
- Checkweighing
- Labeling
- Percent setup
- Statistics
- Formulation
- Under-hook weighing
- Infrared sensors

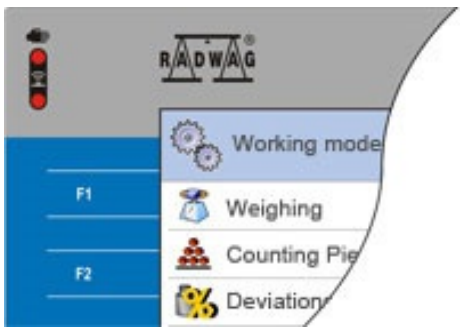
Detachable indicator
The possibility of detach the indicator from the weighing chamber significantly limits shocks and vibrations that are moved on the weighing chamber, reduces imensions and increases the ergonomics of operation.



5,7" touch screen
Infrared proximity sensors
Programmable 40 functions (PRINT, TARE and others).

Communication interfaces
- Ethernet
- 2×RS 232
- 2×USB
- 4 in/4 out

Data exchange through USB storage devices
- update balance software
- export weighing data



In standard balance offers modes of "Parts counting" and "Checkweighing".

Technical data:

	WLY 0,6/1,2/D2 M	WLY 1,2/3/D2 M	WLY 1/D2 -	WLY 2/D2 -
Max capacity	0,6/1,2 kg	1,2/3 kg	1 kg	2 kg
Minimal load	0,5 g	1 g	-	-
Readability	0,01/0,02 g	0,02/0,05 g	0,01 g	0,01 g
Verifying unit	0,1/0,2 g	0,2/0,5 g	-	-
Tare range	-1,2 kg	-3 kg	-1 kg	-2 kg
Repeatability	0,01/0,02 g	0,02/0,05 g	0,03 g	0,03 g
Linearity	±0,01/0,02 g	±0,02/0,05 g	±0,03 g	±0,03 g
OIML class	II	II	-	-
Pan size	195×195 mm			
Stabilization time	3 s			
Working temperature	+15 ° - +30 °C			
Storage temperature	-25 ° - +70 °C			
IP rating	IP 54			
Power supply	110÷230VAC 50/60Hz / 10,5÷15VDC			
Adjustment / Calibration	external			
Display	5,7" touch screen			
Interface	2×USB, 2×RS 232, Ethernet, 4 I/O digital			
Net weight/Gross weight	2,7/3,6 kg			
Packaging dimensions	490×300×150 mm			

Technical data:

	WLY 3/6/D2 M	WLY 6/12/D2 M	WLY 6/D2 -	WLY 10/D2 -	WLY 20/D2 -
Max capacity	3/6 kg	6/12 kg	6 kg	10 kg	20 kg
Minimal load	2,5 g	5 g	-	-	-
Readability	0,05/0,1 g	0,1/0,2 g	0,1 g	0,1 g	0,1 g
Verifying unit	0,5/1 g	1/2 g	-	-	-
Tare range	-6 kg	-12 kg	-6 kg	-10 kg	-20 kg
Repeatability	0,05/0,1 g	0,1/0,2 g	0,3 g	0,3 g	0,3 g
Linearity	±0,05/0,1 g	±0,1/0,2 g	±0,3 g	±0,3 g	±0,3 g
OIML class	II	II	-	-	-
Pan size	195×195 mm				
Stabilization time	3 s				
Working temperature	+15 ° - +30 °C				
Storage temperature	-25 ° - +70 °C				
IP rating	IP 54				
Power supply	110÷230VAC 50/60Hz / 10,5÷15VDC				
Adjustment / Calibration	external				
Display	5,7" touch screen				
Interface	2×USB, 2×RS 232, Ethernet, 4 I/O digital				
Net weight/Gross weight	2,7/3,6 kg				
Packaging dimensions	490×300×150 mm				

Technical data:

	WLY 6/C1/R WLY 6/C1/K -	WLY 12/C1/R WLY 12/C1/K -	WLY 30/C1/R WLY 30/C1/K -	WLY 6/12/C1/R WLY 6/12/C1/K M	WLY 12/30/C1/R WLY 12/30/C1/K M
Max capacity	6 kg	12 kg	30 kg	6/12 kg	12/30 kg
Minimal load	-	-	-	5 g	10 g
Readability	0,1 g	0,2 g	0,5 g	0,1/0,2 g	0,2/0,5 g
Verifying unit	-	-	-	1/2 g	2/5 g
Tare range	-6 kg	-12 kg	-30 kg	-12 kg	-30 kg
Repeatability	0,3 g	0,6 g	1,5 g	0,1/0,2 g	0,2/0,5 g
Linearity	±0,3 g	±0,6 g	±1,5 g	±0,1/0,2 g	±0,2/0,5 g
OIML class	-	-	-	II	II
Pan size	360×290 mm				
Stabilization time	3 s				
Working temperature	+15 ° - +30 °C				
Storage temperature	-25 ° - +70 °C				
IP rating	IP 54				
Power supply	110÷230VAC 50/60Hz / 10,5÷15VDC				
Adjustment / Calibration	external				
Display	5,7" touch screen				
Interface	2×USB, 2×RS 232, Ethernet, 4 I/O digital				
Net weight/Gross weight	6,5/7,8 kg				
Packaging dimensions	550×420×220 mm				

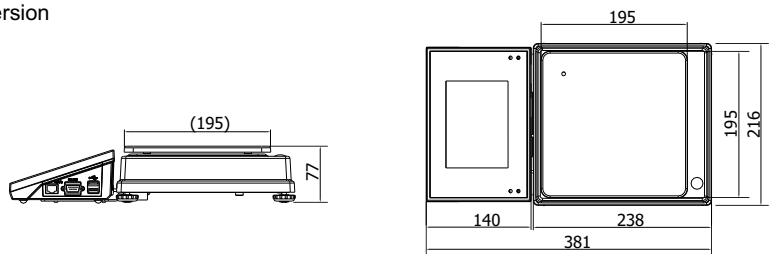
Technical data:

	WLY 60/C2/R WLY 60/C2/K M	WLY 60/C2/R WLY 60/C2/K -	WLY 120/C2/R WLY 120/C2/K -	WLY 60/120/C2/R WLY 60/120/C2/K M
Max capacity	60 kg	60 kg	120 kg	60/120 kg
Minimal load	50 g	-	-	50 g
Readability	1 g	1 g	2 g	1/2 g
Verifying unit	10 g	-	-	10/20 g
Tare range	-60 kg	-60 kg	-120 kg	-120 kg
Repeatability	3 g	3 g	6 g	1/2 g
Linearity	±3 g	±3 g	±6 g	±1/2 g
OIML class	II	-	-	II
Pan size	400×500 mm			
Stabilization time	3 s			
Working temperature	+15 ° - +30 °C			
Storage temperature	-25 ° - +70 °C			
IP rating	IP 54			
Power supply	110÷230VAC 50/60Hz / 10,5÷15VDC			
Adjustment / Calibration	external			
Display	5,7" touch screen			
Interface	2×USB, 2×RS 232, Ethernet, 4 I/O digital			
Net weight/Gross weight	15,5/17,8 kg			
Packaging dimensions	720×580×220 mm			

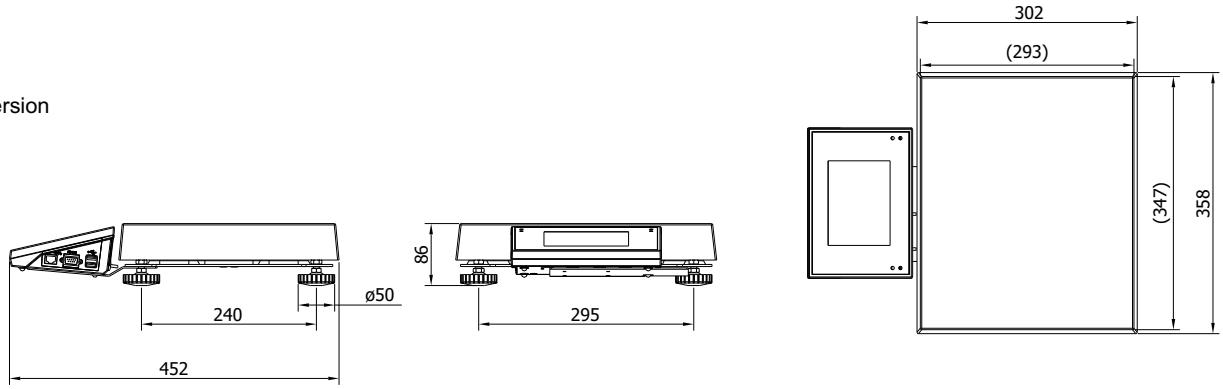
Additional equipment:

"Kafka" thermal printer	Handle for PUE 7 indicator
"Epson" impact printer	Barcode scanner
"Citizen" label printer	Transponder card scanner CK-01
Computer software „PW-WIN”	Weighing module DP2
Computer software „RAD-KEY”	RS 232 cable: balance - thermal printer: P0136
LCD display „WD-4/4"	RS 232 cable: balance - "Epson/Citizen" printer: P0151
PC keyboard	RS 232 cable: balance - computer: P0108
Calibration weight	Power adapter with jack for car lighter „K0047"
Mass standard	

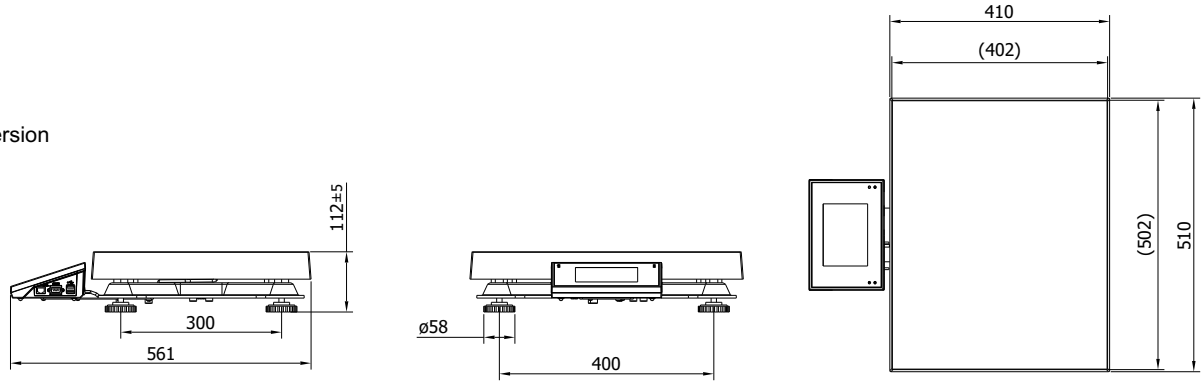
D2 version



C1 version



C2 version

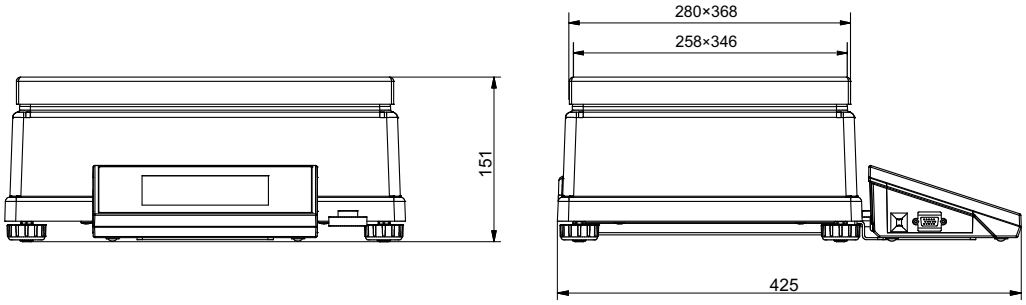


PRECISION BALANCES APP/Y

Precise balances series APP/Y are the response for the growing market demands concerning simple operation and maximum automation of weighing process.

Balances feature a new electronic module and are operated using a touch panel covering a 5,7" colour graphic display. Y balances have implemented new easily operated software.

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation



Technical data:

	APP 25/Y	APP 35/Y	APP 50/Y
Max capacity	25 kg	35 kg	50 kg
Readability	0,1 g	0,1 g	0,1 g
Tare range	-25 kg	-35 kg	-50 kg
Reapatability	0,1 g	0,1 g	0,15 g
Linearity	±0,1 g	±0,1 g	±0,5 g
Adjustment / Calibration	external		
Pan size	346 × 258 mm		
Working temperature	+15° - +40 °C		
Stabilization time	1,5 s		
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A		
Adjustment/Calibration weight	10 kg		
Display	5,7" touch screen		
Interface	2×USB, RS 232, Ethernet, 2in/2out (digital)		

Additional equipment:

Antivibration table for laboratory balances	Power adapter with battery and charger ZR-02
Kafka thermal printer	Mass standard
Dot matrix Epson printer	Power loop module AP2-1
Label printer Citizen	Antistatic cable
Tare and "Print" foot button	Bar code scanner
PW-WIN computer software	Cable RS 232 (scale - Kafka printer) "P0136"
RAD-KEY computer software	Cable RS 232 (scale - computer) "P0108"
Additional LCD display "WD-3/01/Y"	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
PC keyboard	

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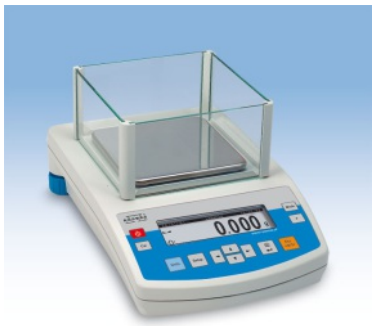
PRECISION BALANCES PS/X

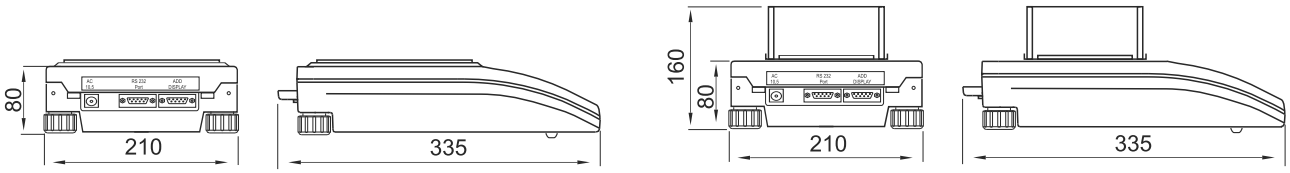


PS/X series of precision balances feature large graphic backlit display and extended user menu. The balances comprise all the features and functions of balances series X and also the newest electronic and mechanical solutions and upgraded software.

The electronic and mechanical structure is similar to balances series PS. PS/X series is equipped with 12 key membrane keyboard, which ensures easy and more intuitive operation for the user. Pan dimension in this series is 195×195 mm or 128×128 mm with a draft shield over the weighing pan. All balances series PS/X comprise internal automatic adjustment/calibration system. They feature RS 232 and RS485 outputs, PS/2 socket and additional LCD display slot.
GLP procedure is available in a form of a report from balance adjustment/calibration process. Printout format is modifiable. User name, project name, print of date and time, and print frame are user defined on a printout.

Balances are equipped with optional weighing of loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure

- Parts counting
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation



Technical data:

	PS 200/2000/X*	PS 250/X*	PS 450/X*	PS 750/X*	PS 1000/X	PS 1500/X	PS 2500/X	PS 4500/X	PS 6000/X	PS 8000/X**
Max capacity	200/2000 g	250 g	450 g	750 g	1000 g	1500 g	2500 g	4500 g	6000 g	8000 g
Minimal load	20 mg	20 mg	20 mg	20 mg	20 mg	500 mg	500 mg	500 mg	500 mg	500 mg
Readability	1/10 mg	1 mg	1 mg	1 mg	1 mg	10 mg	10 mg	10 mg	10 mg	10 mg
Tare range	-2000 g	-250 g	-450 g	-750 g	-1000 g	-1500 g	-2500 g	-4500 g	-6000 g	-8000 g
Linearity	±2/10 mg	±2 mg	±2 mg	±3 mg	±3 mg	±20 mg	±20 mg	±20 mg	±30 mg	15 mg
Repeatability	1/10 mg	1 mg	1 mg	1,5 mg	1,5 mg	10 mg	10 mg	10 mg	15 mg	±20 mg
Pan size	128×128 mm					195×195 mm				
Stabilization time	2 s / 1,5 s	2 s	2 s	2 s	2 s	1,5 s	1,5 s	1,5 s	1,5 s	1,5 s
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C									
Working temperature	+15 - +30 °C									
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A									
Net weight/Gross weight	5/7,1 kg	4,1/6 kg	4,4/6,3 kg	4,4/6,3 kg	4,4/6,3 kg	5/7,1 kg	5/7,1 kg	5/7,1 kg	5/7,1 kg	3,4/5,3 kg
Packaging dimensions	570×325×225 mm									

* verified balances
** external calibration

Additional equipment:

ANTI VIBRATION TABLE	FOOT BUTTON FOR TARE OR PRINT FUNCTIONS
"KAFKA" THERMAL PRINTER	RACK FOR UNDER HOOK WEIGHING
IMPACT "EPSON" PRINTER	LCD ADDITIONAL DISPLAY
CITIZEN LABEL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	SUITCASE FOR BALANCE
PS/2 PC KEYBOARD	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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PRECISION BALANCES PS/C1

Balances series PS feature 12 key front panel and LCD backlit display. Pan dimension in this series is 195×195 or 128×128 mm with a glass draft shield over the weighing pan for protecting the load against air breeze. Each balance has RS 232 and additional display outputs as standard.

GLP procedure is available in a non-modifiable form of a report from balance adjustment/calibration process.
Balances marked as C/1 feature system of external adjustment/calibration.

Parts counting

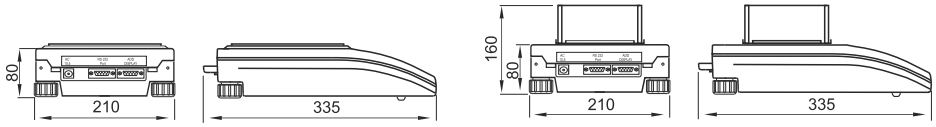
Density determination

Percent setup

Summing function

Checkweighing

Balances are equipped with optional weighing of loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non-standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure.



Technical data:

	PS 200/2000/C/1	PS 110/C/1*	PS 210/C/1*	PS 360/C/1	PS 510/C/1	PS 750/C/1	PS 1000/C/1
Max capacity	200/2000 g	110 g	210 g	360 g	510 g	750 g	1000 g
Minimal load	20 mg	20 mg	20 mg	20 mg	20 mg	20 mg	20 mg
Readability	1/10 mg	1 mg	1 mg	1 mg	1 mg	1 mg	1 mg
Tare range	-2000 g	-110 g	-210 g	-360 g	-510 g	-750 g	-1000 g
Repeatability	1/10 mg	1 mg	1 mg	1 mg	1 mg	1,5 mg	1,5 mg
Linearity	±2/10 mg	±2 mg	±2 mg	±2 mg	±2 mg	±3 mg	±3 mg
Stabilization time	2 s / 1,5 s	2 s	2 s	2 s	2 s	2 s	2 s
Pan size	128×128 mm						
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C						
Working temperature	+15 - +30 °C						
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A						
Net weight/Gross weight	3,3/5,2 kg	3,2/5,1 kg	3,2/5,1 kg	3,2/5,1 kg	3,2/5,1 kg	3,2/5,1 kg	3,2/5,1 kg
Packaging size	570×325×225 mm						

* verified balances

Technical data:

	PS 1200/C/1*	PS 2100/C/1*	PS 3500/C/1	PS 4500/C/1	PS 6000/C/1	PS 8000/C/1
Max capacity	1200 g	2100 g	3500 g	4500 g	6000 g	8000 g
Minimal load	500 mg	500 mg	500 mg	500 mg	500 mg	500 mg
Readability	10 mg	10 mg	10 mg	10 mg	10 mg	10 mg
Tare range	-1200 g	-2100 g	-3500 g	-4500 g	-6000 g	-8000 g
Repeatability	10 mg	10 mg	10 mg	10 mg	15 mg	15 mg
Linearity	±20 mg	±20 mg	±20 mg	±20 mg	±20 mg	±20 mg
Stabilization time	1,5 s	1,5 s	1,5 s	1,5 s	1,5 s	1,5 s
Pan size	195×195 mm					
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C					
Working temperature	+15 - +30 °C					
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A					
Net weight/Gross weight	3,2/5,1 kg	3,4/5,3 kg	3,4/5,3 kg	3,4/5,3 kg	3,4/5,3 kg	3,4/5,3 kg
Packaging size	570×325×225 mm					

* verified balances

Additional equipment:

ANTI VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
IMPACT "EPSON" PRINTER	SUITCASE FOR BALANCE
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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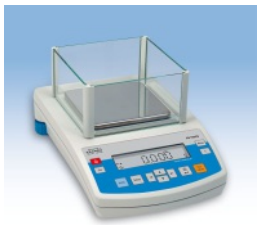
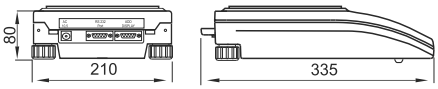
PRECISION BALANCES PS/C2

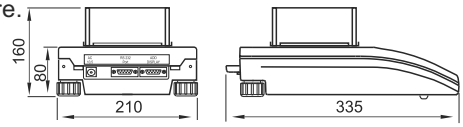


Balances series PS feature 12 key front panel and LCD backlit display. Pan dimension in this series is 195×195 or 128×128 mm with a glass draft shield over the weighing pan for protecting the load against air breeze. Each balance has RS 232 and additional display outputs as standard. PS C/2 series features system of automatic internal adjustment/calibration, RS 232 and additional display outputs.

GLP procedure is available in a non-modifiable form of a report from balance adjustment/calibration process. Balances marked as C/2 comprise system of autoamtic internal adjustment / calibration triggered by time flow or temperature conditions.
Balances are equipped with an option of weighing loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure.

- Parts counting
- Density determination
- Percent setup
- Summing function
- Checkweighing





Technical data:

	PS 200/2000/C/2	PS 210/C/2*	PS 360/C/2*	PS 600/C/2*	PS 750/C/2	PS 1000/C/2
Max capacity	200/2000 g	210 g	360 g	600 g	750 g	1000 g
Minimal load	20 mg	20 mg	20 mg	20 mg	20 mg	20 mg
Readability	1/10 mg	1 mg	1 mg	1 mg	1 mg	1 mg
Tare range	-2000 g	-210 g	-360 g	-600 g	-750 g	-1000 g
Repeatability	1/10 mg	1 mg	1 mg	1,5 mg	1,5 mg	1,5 mg
Linearity	±2/10 mg	±2 mg	±2 mg	±3 mg	±3 mg	±3 mg
Stabilization time	2 s	2 s	2 s	2 s	2 s	2 s
Pan size	128×128 mm					
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C					
Working temperature	+15 - +30 °C					
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A					
Net weight/Gross weight	4,3/6,2 kg	3,5/5,4 kg	3,5/5,4 kg	3,7/5,6 kg	3,7/5,6 kg	4,3/6,2 kg
Packaging dimensions	570×325×225 mm					

* verified balances

Technical data:

	PS 1200/C/2*	PS 2100/C/2*	PS 3500/C/2*	PS 4500/C/2*	PS 6000/C/2*
Max capacity	1200 g	2100 g	3500 g	4500 g	6000 g
Minimal load	500 mg	500 mg	500 mg	500 mg	500 mg
Readability	10 mg	10 mg	10 mg	10 mg	10 mg
Tare range	-1200 g	-2100 g	-3500 g	-4500 g	-6000 g
Repeatability	10 mg	10 mg	10 mg	10 mg	15 mg
Linearity	±20 mg	±20 mg	±20 mg	±20 mg	±30 mg
Stabilization time	1,5 s	1,5 s	1,5 s	1,5 s	1,5 s
Pan size	195×195 mm				
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C				
Working temperature	+15 - +30 °C				
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A				
Net weight/Gross weight	4/5,9 kg	4,6/6,5 kg	4,6/6,5 kg	4,6/6,5 kg	4,6/6,5 kg
Packaging dimensions	570×325×225 mm				

* verified balances

Additional equipment:

ANTI VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
IMPACT "EPSON" PRINTER	SUITCASE FOR BALANCE
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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PRECISION BALANCES APP/C

Precision balances series APP/C are offered with weighing pan 346×258 mm. They feature LCD backlit display.

Each model of APP/C balance comprises an electromagnetic measuring system and in case of C/2 version system of automatic internal adjustment/calibration. Balance housing is made of aluminum, and stainless steel weighing pan.

APP/C balances feature the possibility of weighing loads outside the main weighing pan (so called under hook weighing). It is an option for weighing loads with non-standard dimensions and shapes and those creating magnetic field. This means of weighing is also suitable for density determination procedures.

Parts counting

Density determination

Percent setup

Technical data:

		APP 25/C APP 25/C/2 *	APP 30/C APP 30/C/2	APP 35/C APP 35/C/2	APP 6/35/C APP 6/35/C/2 *	APP 50/C -
Max capacity		25 kg	30 kg	35 kg	6/35 kg	50 kg
Readability		0,1 g	0,1 g	0,1 g	1/5 g	0,1 g
Tare range		-25 kg	-30 kg	-35 kg	-35 kg	-50 kg
Reapatability		0,1 g	0,1 g	0,1 g	1/5 g	0,15 g
Linearity		±0,1 g	±0,3 g	±0,3 g	±1/5 g	±0,5 g
Pan size		346 × 258 mm				
Working temperature		+15° - +40 °C				
Stabilization time		3 s				
Interface		RS 232				
Power supply		110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A				
External adjustment/calibration weight		20 kg				
Display		LCD (backlit)				
Net weight/Gross weight	APP/C	14,4/16,4 kg				
	APP/C/2	14,8/16,8 kg				
Packaging dimensions		515×480×660 mm				

* verified balances

Additional equipment:

Antivibration table for laboratory balances	External adjustment / calibration weight
Kafka thermal printer	Mass standard
Dot matrix Epson printer	Power loop module AP2-1
PW-WIN computer software	Antistatic cable
RAD-KEY computer software	Cable RS 232 (scale - Kafka printer) "P0136"
REC-FS computer software	Cable RS 232 (scale - computer) "P0108"
Additional LCD display "WD-3/01"	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
Power adapter with battery and charger ZR-02	

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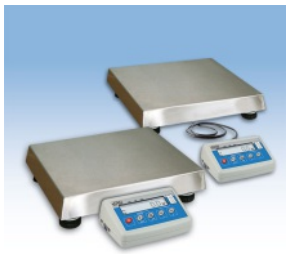
PRECISION BALANCES WLC



Balances series WLC are designed for fast and precise mass determination in laboratory and industrial conditions. They can also be used in areas with no access to mains (230V), as their standard equipment they includes internal rechargeable battery and RS 232 output. WLC series, independently on model (pan size: 128×128, 125×145, 195×195, 290×360 and 400×500 mm) and capacity, features stainless steel weighing platform and backlit LCD display providing good reading of weighing result.

Balances series A2 offer the possibility of weighing loads outside weighing platform (so called under hook weighing), where a load is hanged under the instrument. This is an alternative for weighing loads with non-standard dimensions and shapes.

- Parts counting
- Checkweighing
- Animal weighing
- Percent setup
- Caps lock of max indication
- Measurement in Newton

Technical data:

	WLC 0,6/B1*	WLC 1,2/B1*	WLC 1/A2	WLC 1,2/3/A2*	WLC 2/A2	WLC 3/6/A2*	WLC 6/A2	WLC 6/12/A2*	WLC 10/A2	WLC20/A2
Max capacity	0,6 kg	1,2 kg	1 kg	1,2/3 kg	2 kg	3/6 kg	6 kg	6/12 kg	10 kg	20 kg
Minimal load	0,5 g	1 g	-	1 / 2,5 g	-	2,5 / 5 g	-	5 / 10 g	-	-
Reading unit	0,01 g	0,02 g	0,01 g	0,02/0,05 g	0,01 g	0,05/0,1 g	0,1 g	0,1/0,2 g	0,1 g	0,1 g
Verification unit	0,1 g	0,2 g	-	0,2 / 0,5 g	-	0,5 / 1 g	-	1 / 2 g	-	-
Tare range	-0,6 kg	-1,2 kg	-1 kg	-3 kg	-2 kg	-6 kg	-6 kg	-12 kg	-10 kg	-20 kg
Repeatability	0,01 g	0,02 g	0,03 g	0,02/0,05 g	0,03 g	0,05/0,1 g	0,2 g	0,1/0,2 g	0,2 g	0,2 g
Linearity	±0,01 g	±0,02 g	±0,03 g	±0,02/0,05 g	±0,03 g	±0,05/0,1 g	±0,2 g	±0,1/0,2 g	±0,2 g	±0,2 g
Pan size	125 × 145 mm		195 × 195 mm							
OIML class	II	II	-	II	-	II	-	II	-	-
Interface	RS 232									
Power supply	230V / 11V AC or 120V / 11V AC, and accumulator									
IP rating	IP 43									
Stabilization time	3 s									
Working temperature	+15° - +30 °C									
Display	LCD (backlit)									
Net weight/Gross weight	1,2 / 2 kg		3 / 4 kg							
Packaging dimensions	320×210×150 mm		320×210×150 mm							

* verified balances

Technical data:

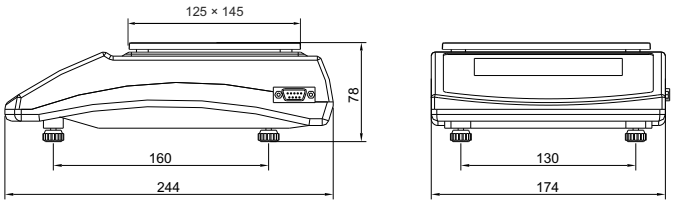
	WLC 6/C1/R WLC 6/C1/K	WLC 6/12/C1/R* WLC 6/12/C1/K*	WLC 12/C1/R WLC 12/C1/K	WLC 12/30/C1/R* WLC 12/30/C1/K*	WLC 30/C1/R WLC 30/C1/K	WLC 60/C2/R* WLC 60/C2/K*	WLC 60/C2/R WLC 60/C2/K	WLC 60/120/C2/R* WLC 60/120/C2/K*	WLC 120/C2/R WLC 120/C2/K
Max capacity	6 kg	6/12 kg	12 kg	12/30 kg	30 kg	60 kg	60 kg	60/120 kg	120 kg
Minimal load	-	5 / 10 g	-	10 / 25 g	-	50 g	-	50 / 100 g	-
Reading unit	0,1 g	0,1/0,2 g	0,2 g	0,2/0,5 g	0,5 g	1 g	1 g	1/2 g	2 g
Verification unit	-	1 / 2 g	-	2 / 5 g	-	10 g	-	10 / 20 g	-
Tare range	-6 kg	-12 kg	-12 kg	-30 kg	-30 kg	-60 kg	-60 kg	-120 kg	-120 kg
Repeatability	0,3 g	0,1/0,2 g	0,6 g	0,2/0,5 g	1,5 g	3 g	3 g	1/2 g	6 g
Linearity	±0,3 g	±0,1/0,2 g	±0,6 g	±0,2/0,5 g	±1,5 g	±3 g	±3 g	±1/2 g	±6 g
Pan size	290 × 360 mm					400 × 500 mm			
OIML class	-	II	-	II	-	II	-	II	-
Interface	RS 232								
Power supply	230V / 11V AC or 120V / 11V AC, and accumulator								
Stabilization time	3 s								
Working temperature	+15° - +30 °C								
Display	LCD (backlit)								
Net weight/Gross weight	7 / 8 kg					16 / 18 kg			
Packaging dimensions	550×420×220 mm					720×580×220 mm			

* verified balances

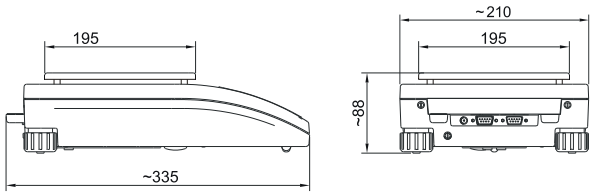
Additional equipment:

"KAFKA" THERMAL PRINTER
IMPACT "EPSON" PRINTER
RACK FOR UNDER HOOK WEIGHING
SUITCASE FOR BALANCE
ADDITIONAL LCD DISPLAY
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS
EXTERNAL BATTERY PACK WITH CHARGER
COMPUTER SOFTWARE PW-WIN 2005, RAD-KEY 2000, REC-FS 2000

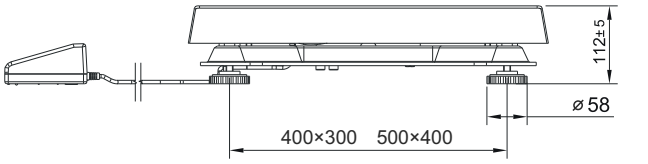
B1 version

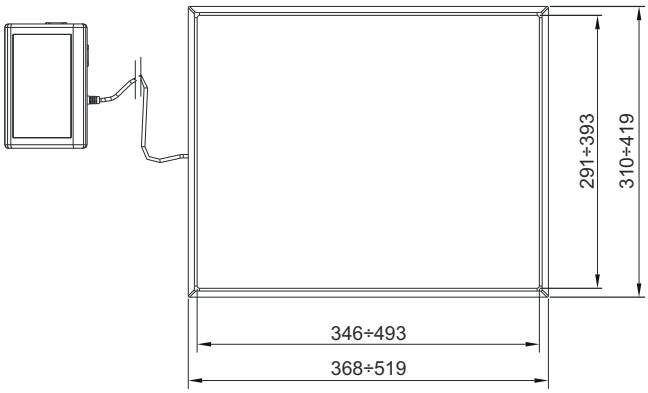


A2 version

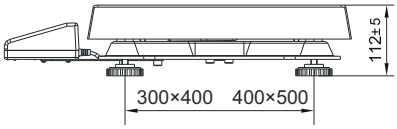


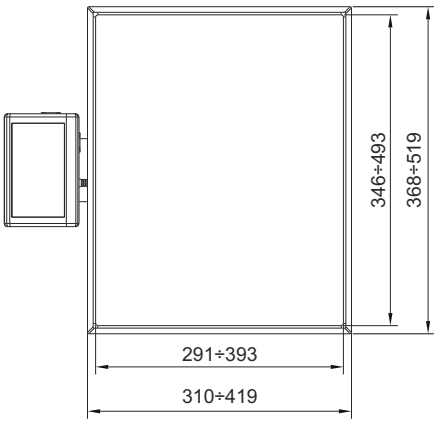
/K version





/R version





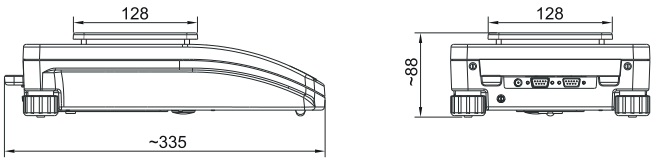
PRECISION BALANCES WLC C/2

Balances series WLC C/2 are designed for fast and precise mass determination in laboratory and industrial conditions. They are easily utilized in areas with no access to mains (230V), as their standard equipment includes internal rechargeable battery and RS 232 output. WLC/C2 series independently on version (pan size: 128×128, and 195×195 mm) features stainless steel weighing platform and backlit LCD display providing good reading of weighing result.
WLC/C2 series comprises system of automatic internal adjustment/calibration system.

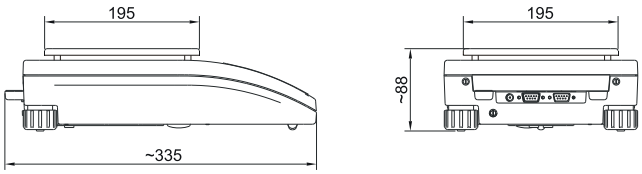
Series WLC A2 offers the possibility of weighing loads outside weighing platform (so called under hook weighing), where a load is hanged under the instrument. This is an alternative for weighing loads with non-standard dimensions and shapes.

- Parts counting
- Checkweighing
- Animal weighing
- Percent setup
- Peak hold
- Measurement in Newton

A1 version



A2 version



Technical data:

	WLC 0,6/A1/C/2	WLC 1/A2/C/2	WLC 1,2/A2/C/2 *	WLC 3/A2/C/2 *	WLC 6/A2/C/2 *
Max capacity	0,6 kg	1 kg	1,2 kg	3/6 kg	6 kg
Readability	0,01 g	0,01 g	0,02 g	0,05 g	0,1 g
Tare range	-0,6 kg	-1 kg	-3 kg	-6 kg	-6 kg
Repeatability	0,02 g	0,03 g	0,02 g	0,05 g	0,2 g
Linearity	±0,2 g	±0,03 g	±0,02 g	±0,05 g	±0,2 g
Pan size	128 × 128 mm	195 × 195 mm			
Interface	RS 232				
Power supply	230V / 11V AC or 120V / 11V AC, and accumulator				
Calibration	internal (automatic)				
IP rating	IP 43				
Stabilization time	3 s				
Working temperature	+15° - +30 °C				
Display	LCD (backlit)				
Net weight / Gross weight	3,6 / 4,6 kg				
Packaging dimensions	560×330×230 mm				

* verified balances

Additional equipment:

"KAFKA" THERMAL PRINTER	DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS
IMPACT "EPSON" PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
RACK FOR UNDER HOOK WEIGHING	SUITCASE FOR BALANCE
LCD ADDITIONAL DISPLAY	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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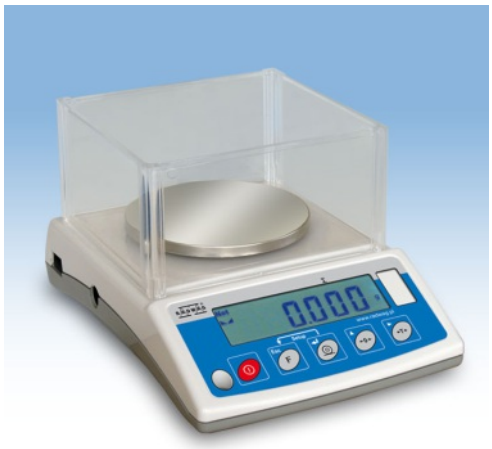
PRECISION BALANCES SERIES WTB

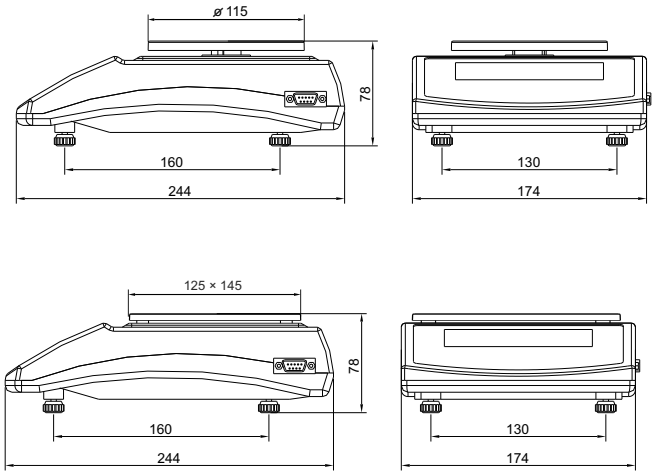


WTB balances are designed for fast and precise determination of mass in laboratory conditions.

They can be used in locations with no access to (230V) as they feature internal rechargeable battery.

WTB series is equipped with stainless steel weighing pan, RS 232 output and backlit LCD display.

- Parts counting
- Percent setup
- Weighing animals
- Summing function
- +/- control
- Peak hold of maximal indication



Technical data:

	WTB 200	WTB 2000
Maximal capacity	200 g	2000 g
Readability	0,001 g	0,01 g
Tare range	-200 g	-2000 g
Repeatability	0,003 g	0,03 g
Linearity	±0,003 g	±0,03 g
Working temperature	+15° - +30° C	
IP rating	IP 43	
Power supply	230V / 11V AC or 120V / 11V AC and 6×AA NiMH accumulator	
Pan size	ø 115 mm	125 × 145 mm
Display	LCD (backlit)	
Net weight / Gross weight	1,1 / 2 kg	
Packaging dimensions	320×210×150 mm	

Additional equipment:

LCD ADDITIONAL DISPLAY	EXTERNAL RECHARGEABLE BATTERY PACK ZR-02
"KAFKA" THERMAL PRINTER	COMPUTER SOFTWARE: PW-WIN, RAD-KEY, REC-FS, LS-FS
IMPACT "EPSON" PRINTER	RS 232/RS 485 CONVERTER
TABLE FOR SCALE	POWER LOOP AP-2

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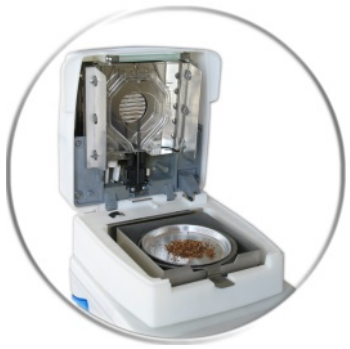
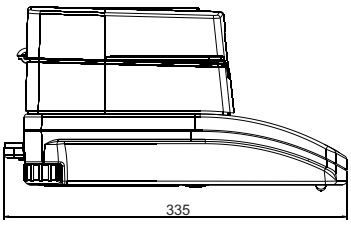
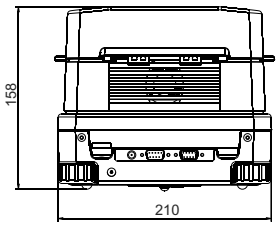
MOISTURE ANALYZER MAX



Moisture analyzers are laboratory measuring instruments designed to determine relative humidity content in relatively small samples of various substances.
Moisture analyzer series MAX features backlit graphic display, which makes the instrument's interface transparent ad easy to use. User menu includesa data base with 99 drying procedures, with specified drying parameters for each database entry (i.e. substance name, its number, ID, etc).
Moisture analyzer MAX features:
·easy operation provided by backlit graphic display;
·standard and non-standard applications;
·available software languages versions: Polish, English, German, French, Spanish, Russian, Czech;
·menu operation with peripheral PC keyboard;
·data base with 99 drying procedures;
·drying profiles (standard, mild, step, rapid);
·finish mode (manual, automatic, time defined);
·visualization of drying process
·GLP/GMP printouts and reports
·halogen or infrared lamps
Maximal capacity of moisture analyzer series MAX is 50 g /0,1 mg. Moisture content is measured with accuracy 0,01%(0,001% for samples up to 1,5g). Maximal drying temperature equals 160°C (an extra cost option is moisture analyzer with drying temperature upgraded to 250°C).





Technical data:

	MAX 50/1/NH MAX 50/1/WN MAX 50/1/NP	MAX 50/NH MAX 50/WH MAX/50/NP	MAX 60/NH MAX 60/WH MAX 60/NP
Max capacity	50 g	50 g	60 g
Reading unit	0,1 mg	1 mg	1 mg
Tare range	-50 g	-50 g	-60 g
Max sampling mass	50 g	50 g	60 g
Accuracy of moisture readout	0,0001 %	0,001 %	0,001 %
Repeatability of moisture readout	+/-0,1% (sample 2g), +/-0,02% (sample 10g)		
Drying chamber dimensions	120×120×20 mm		
Pan size	ø 90 mm		
Range of drying temperature	max. 160° C (NH and NP version), max. 250° C (WH version)		
Heating module	halogen (NH and WH version), IR emitter (NP version)		
Drying modes	4 drying modes (standard, quick, stepped, mild)		
Auto switch off options	4 modes (manual, automatic, time defined, user defined)		
Additional functions	sample identification, drying diagram		
Working temperature	+15° - +40 °C		
Power suply	230V 50Hz AC		
Display	graphic (backlit)		
Net weight / Gross weight	5,1/7,2 kg		
Packaging dimensions	520×390×435 mm		

NH - halogen, max. 160° C **WH** - halogen, max. 250° C **NP** - IR emitter max. 160° C

Additional equipment:

ANTI-VIBRATION TABLE	DISPOSABLE WEIGHING PANS
"KAFKA" THERMAL PRINTER	CONTROL TERMOMETER
IMPACT "EPSON" PRINTER	CALIBRATION WEIGHT
PC KEYBOARD	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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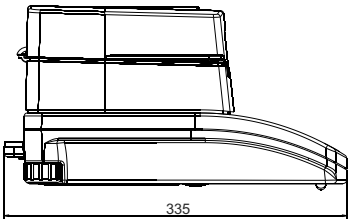
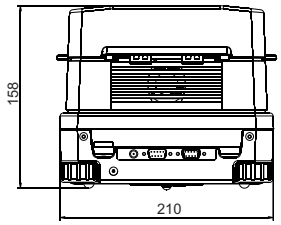
MOISTURE ANALYZER MAC

A moisture analyzer is a laboratory measuring instrument designed to determine relative humidity content in relatively small samples of various substances.

Moisture analyzer series MAC features:
·easy operation provided by backlit LCD display
·drying profile (standard, mild, step, rapid).
·finish mode (manual, humidity stabilization, automatic, time defined).
·GLP/GMP printouts and reports
·halogen or infrared lamps
·standard and non-standard applications
·optimization of work ensured by halogen lamps mode

Maximal capacity of a moisture analyzer series MAC is 210 g /1 mg. Moisture content is measured with accuracy 0,01% (0,001% for samples up to 1,5g). Maximal drying temperature is 160°C (an extra cost option is a moisture analyzer with drying temperature upgraded to 250°C).





Technical data:

	MAC 50/1/NH MAC 50/1/WH MAC 50/1/NP	MAC 50/NH MAC 50/WH MAC 50/NP	MAC 110/NH MAC 110/WH MAC 110/NP	MAC 210/NH MAC 210/WH MAC 210/NP
Max capacity	50 g	50 g	110 g	210 g
Reading unit	0,1 mg	1 mg	1 mg	1 mg
Tare range	-50 g	-50 g	-110 g	-210 g
Max sampling mass	50 g	50 g	110 g	210 g
Accuracy of moisture reading	0,0001 %	0,001 %	0,001 %	0,001 %
Moisture readout repeatability	+/-0,24% (sample < 2g), +/-0,06% (sample 2-10g), +/- 0,04% (sample >10g)			
Drying chamber dimensions	120×120×20 mm			
Pan size	ø 90 mm			
Range of drying temperature	max. 160° C (NH and NP version), max. 250° C (WH version)			
Heating module	halogen (NH and WH version), IR emitter (NP version)			
Drying modes	4 drying modes (standard, quick, stepped, mild)			
Auto switch off options	3 modes(manual, automatic, time defined)			
Additional functions	sample identification			
Working temperature	+15° - +40 °C			
Power suply	230V AC or 120V AC			
Display	LCD (backlit)			
Net weight / Gross weight	4,9 / 7 kg			
Packaging dimensions	520×390×435 mm			

NH - halogen, max. 160° C **WH** - halogen, max. 250° C **NP** - IR emitter, max. 160° C

Additional equipment:

ANTI-VIBRATION TABLE	DISPOSABLE WEIGHING PANS
"KAFKA" THERMAL PRINTER	CONTROL TERMOMETER
IMPACT "EPSON" PRINTER	ADJUSTMENT / CALIBRATION WEIGHT
	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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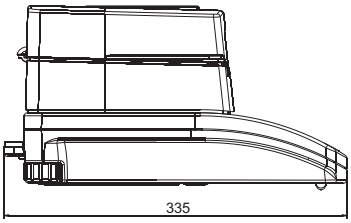
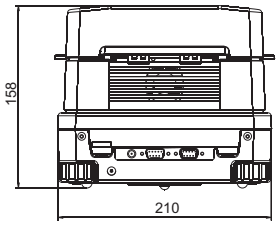
MOISTURE ANALYZER MAC/2

Moisture analyzers are measuring devices specially designed for determination of moisture content of relatively small samples of various materials.

Moisture analyzer MAC enables:
·user friendly LCD display
·drying profiles (standard, quick, stepped, mild)
·switch off options (manual, automatic, time defined)
·GLP/GMP printouts and reports
·halogen lamp
·standard and non-standard applications

Maximal capacity of moisture analyzer series MAC is 110 g / 10 mg. Moisture content is measured with accuracy 0,01%. Maximal drying temperature is 160 °C.





Technical data:

	MAC 110/2/NH
Max capacity	110 g
Reading unit	10 mg
Tare range	-110 g
Max mass of sample	110 g
Accuracy of moisture reading	0,01 %
Repeatability	+/-0,30% (sample < 2g), +/-0,12% (sample 2-10g), +/-0,08% (sample > 10g)
Drying chaber dimensions	120×120×20 mm
Pan size	ø 90 mm
Range of drying temperature	max. 160 °C
Heating module	halogen
Drying profiles	4 drying modes (standard, quick, stepped, mild)
Switch off options	3 modes (manual, automatic, time defined)
Additional functions	sample identification
Power of heating device	400 W
Working temperature	+15° - +40 °C
Power supply	230V AC or 120V AC
Display	LCD (backlit)

NH - halogen, max. 160° C

Additional equipment:

ANTI-VIBRATION TABLE	CONTROL TERMOMETER
"KAFKA" THERMAL PRINTER	CALIBRATION WEIGHT
NEEDLE PRINTER "EPSON"	ANTISTATIC CABLE
IR EMITTER	COMPUTER SOFTWARE: PW-WIN, RAD-KEY
DISPOSABLE PANS	

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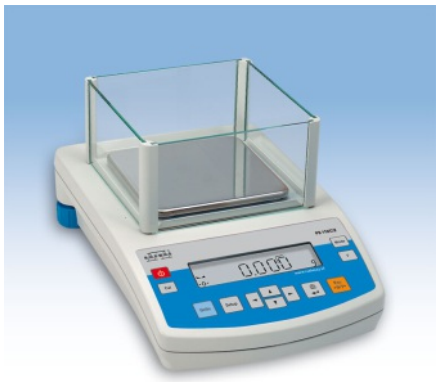
CARAT BALANCES PS



Carat balances series PS feature backlit LCD display, weighing pan 128×128 mm with glass draft shield and readability 1 mg. They are also accessible with 10 mg readability, and weighing pan 195×195 mm.

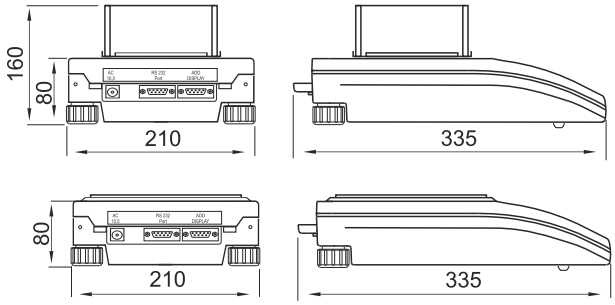
GLP procedure in case of carat balances series PS has a form of a report from balance adjustment/calibration process, and its shape is non-modifiable. Each balance is equipped with RS 232 output.

Balances are equipped with possibility of weighing loads outside the main weighing platform (so called under hook weighing). This means of mass measuring is an alternative for loads with non-standard dimensions and shapes and those which create magnetic field. Under hook weighing is also applied for density determination procedures.

Parts counting

Density determination

Percent setup



Technical data:

		PS 510/C/1/CT* PS 510/C/2/CT	PS 2100/C/1/CT* PS 2100/C/2/CT
Max capacity		510 g / 2550 ct	2100 g / 10500 ct
Minimal load		0,02 g / 0,1 ct	0,5 g / 2,5 ct
Readability		0,001 g / 0,005 ct	0,01 g / 0,05 ct
Tare range		-510 g / -2550 ct	2100 g / -10500 ct
Reapatability		0,001 g / 0,005 ct	0,01 g / 0,05 ct
Linearity		±0,001 g / 0,005 ct	±0,01 g / 0,05 ct
Pan size		128 × 128 mm	195 × 195 mm
Sensitivity drift		2 ppm/°C in temperature +15 ° - +35 °C	
Stabilization time		2 s	1,5 s
Working temperature		+15° - +30 °C	
Interface		RS 232	
Power supply		110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A	
Adjustment / Calibration		internal (for C/2 version or external (for C/1 version)	
Display		LCD (backlit)	
Net weight / gross weight	PS/C/1	3,2 / 5,1 kg	3,4 / 5,3 kg
	PS/C/2	3,7 / 5,6 kg	4,6 / 6,5 kg
Packaging dimensions		570×325×225 mm	

* Calibration needs to be carried out on site, due to influence of gravity acceleration

Additional equipment:

ANTI VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
IMPACT PRINTER "EPSON" TM-U220D, TM-U220B, TM-U220A	SUITCASE FOR BALANCE
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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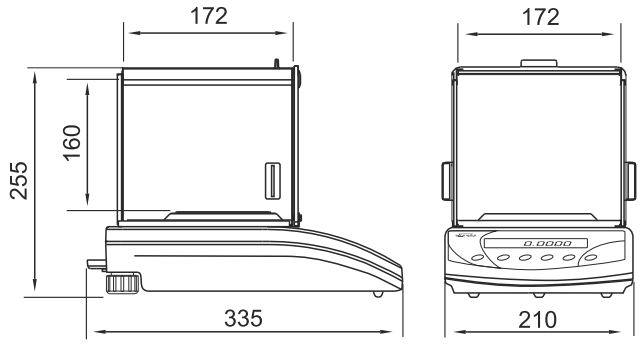
CARAT BALANCES APS

Carat balances series APS feeature backlit LCD display. Measurement accuracy and reliability is assured by system of automatic internal adjustment / calibration triggered by time flow and temperature conditions. APS series comprises a stainless stee lweighing pan ø 85 mm with anti draft shied. balance readability is 0,2 mg. The anti draft shield considerably improves balance operation conditions in areas with possible air breeze.
GLP procedure in APS series has a form of report from balance adjustment / calibration process and its format is non-modifiable. Each APS balance comprises RS 232 output and additional display slot.
Balances offer possibility of weighing loads outside the main weighing platform i.e. under hook weighing. This is an alternative weighing mode for loads with non-standard dimensions and shapes and those creating magnetic field. Under hook weighing is also applied for density determination procedures.

Parts counting
Density determination
Percent setup
Summing function



Technical data:

	APS 120/C/2/CT	APS 220/C/2/CT	APS 320/C/2/CT
Max capacity	120 g / 600 ct	220 g / 1100 ct	320 g / 1600 ct
Minima load	0,02 g / 0,1 ct	0,02 g / 0,01 ct	0,02 g / 0,1 ct
Readability	0,0002 g / 0,001 ct	0,0002 g / 0,001 ct	0,0002 g / 0,001 ct
Tare range	-120 g / -600 ct	-220 g / -1100 ct	-320 g / -1600 ct
Working temperature		+15° ÷ +35° C	
Reapatability	0,0002 g / 0,001 ct	0,0002 g / 0,001 ct	0,0004 g / 0,002 ct
Linearity	±0,0002 g / 0,001 ct	±0,0002 g / 0,001 ct	±0,0004 g / 0,002 ct
Sensitivity drift		2 ppm/°C in temperature +15° ÷ +35°C	
Stabilization time		3,5 s	
Interface		RS 232	
Power supply		110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A	
Adjustment / Calibration		internal automatic	
Pan size		ø 85 mm	
Net weight / Gross weight	5,5/8,2 kg	5,6/8,3 kg	5,6/8,3 kg
Packaging size		495×385×515 mm	

Additional equipment:

ANTI-VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
IMPACT "EPSON" PRINTER	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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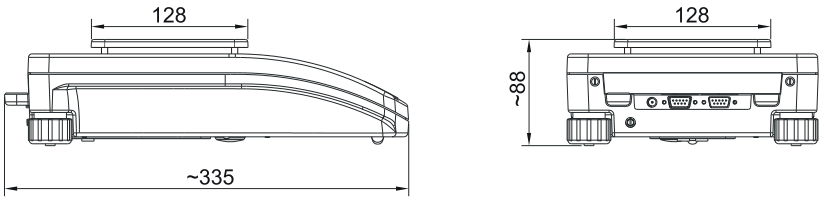
PHARMACEUTICAL BALANCES WLC C/2

Balances for pharmacy series WLC C/2 are designed for fast and precise determination of mass in laboratory and industrial conditions. They are easily applicable in areas with no access to mains (230V), as their standard equipment features internal rechargeable battery and RS 232 output. WLC/C/2 series comprises a stainless steel weighing platform and backlit LCD display providing good reading of weighing result.

WLC/C/2 series features system of automatic internal adjustment/calibration triggered by time flow or temperature changes.

- Parts counting
- Checkweighing
- Animal weighing
- Percent setup
- Peak hold
- Measurement in Newton



Technical data:

	WLC 0,6/A1/C/2
Max capacity	0,6 kg
Readability	0,01 g
Tare range	-0,6 kg
Repeatability**	0,02 g
Linearity	±0,2 g
Pan size	128 × 128 mm
Stabilization time	3 s
Working temperature	+15° - +30 °C
Power supply	230V / 11V AC or 120V / 11V AC, and accumulator
Operation time on batteries	45 hours (average)
Display	LCD (backlit)
Interface	RS 232
Net weight / Gross weight	3,6 / 4,6 kg
Packaging dimensions	560 × 330 × 230 mm

** - repeatability expressed as standard deviation

Additional equipment:

ANTI VIBRATION TABLE	ADJUSTMENT/CALIBRATION WEIGHT
"KAFKA" THERMAL PRINTER	MASS STANDARD
IMPACT "EPSON" PRINTER	SUITCASE FOR BALANCE
ADDITIONAL LCD DISPLAY WD-4/1	CABLE RS 232 FOR KAFKA PRINTER „PO136"
RACK FOR UNDER HOOK WEIGHING	CABLE RS 232 FOR EPSON PRINTER „PO108"
	POWER CORD WITH JACK FOR CAR: „K0047"

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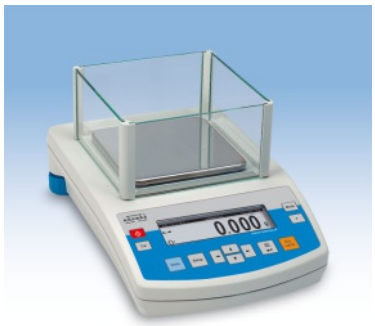
PHARMACEUTICAL BALANCES PS/X

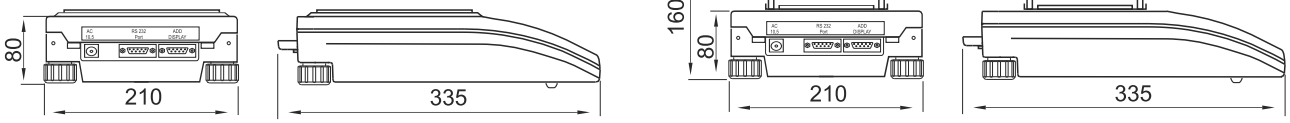


Balances for pharmacy series PS/X feature backlit graphic display and extended user manu. PS/X series comprises all the features and functions of balances series X and also the newest electronic and mechanical solutions and upgraded software.

The electronic and mechanical structure is similar to balances series PS. It features 12 key membrane keyboard, which ensures easier more intuitive operation for the user. Pan dimension in this series is 195×195 or 128×128 mm with a draft shield over the weighing pan. All balances series PS/X feature internal adjustment/calibration system. Each balance is equipped with RS 232 and RS485 outputs, PS/2 socket and additional LCD display slot.
GLP procedure is available in a form of a report from balance calibration. Printout shape is fully modifiable. User name, project name, print of date and time, and print frame are user defined on printout.

Balances are equipped with an option of weighing loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non-standard dimensions and shapes or those creating magnetic field. Under hook weighing is frequently applied in case of density determination procedure.

- Parts countin
- Filling
- Animal weighing
- Density determination
- Checkweighing
- Percent setup
- Statistics
- Formulation



Technical data:

	PS 200/2000/X	PS 250/X	PS 2500/X	PS 4500/X
Max capacity	200/2000 g	250 g	2500 g	4500 g
Minimal load	20 mg	20 mg	500 mg	500 mg
Readability	1/10 mg	1 mg	10 mg	10 mg
Tare range	-2000 g	-250 g	-2500 g	-4500 g
Repeatability	±2/10 mg	±2 mg	±20 mg	±20 mg
Linearity	1/10 mg	1 mg	10 mg	10 mg
Pan size	128×128 mm	128×128 mm	195×195 mm	195×195 mm
Stabilization time	2 s / 1,5 s	2 s	1,5 s	1,5 s
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C			
Working temperature	+15 - +30 °C			
Interface	RS 232			
Adjustment/Calibration	internal (automatic)			
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A			
Display	graphic (backlit)			
Net weight/Gross weight	5/7,1 kg	5/7,1 kg	5/7,1 kg	5/7,1 kg
Packaging dimensions	570×325×225 mm			

Additional equipment:

ANTI-VIBRATION TABLE (mild steel or stainless steel)	FOOT BUTTON FOR TARE OR PRINT FUNCTIONS
"KAFKA" THERMAL PRINTER	RACK FOR UNDER HOOK WEIGHING
IMPACT "EPSON" PRINTER	LCD ADDITIONAL DISPLAY
CITIZEN LABEL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	SUITCASE FOR BALANCE
PC PS/2 KEYBOARD	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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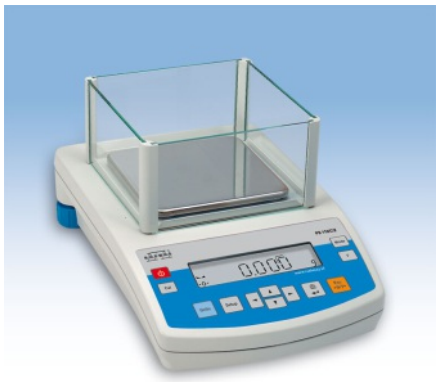
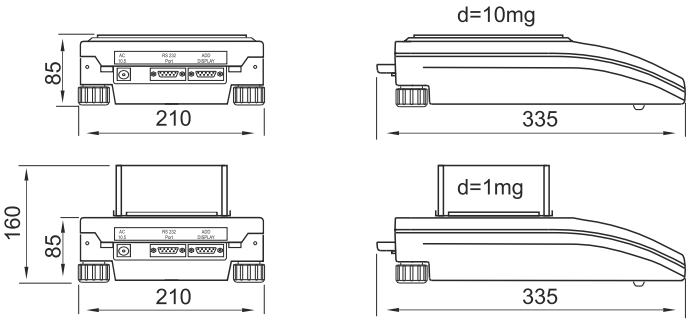
PHARMACEUTICAL BALANCES PS/C1



Pharmaceutical balances series PS feature backlit LCD display. The weighing pan dimension is 128×128 mm with a glass shield over the weighing pan and readability 1 mg. Optionally, the balance with 128x128 mm weighing pan is offered with draft shield which considerably improves operation conditions in areas with possible air breeze.
The second type of PS/C1 pharmaceutical balances features weighing pan with dimensions 195x195 mm and readability 10 mg.
GLP procedure is available in a form of a non-modifiable report from balance adjustment/calibration process. Each pharmaceutical balance series PS/C1 features RS 232 port and additional display slot.
Pharmaceutical balances offer the possibility of weighing loads outside the weighing pan, i.e. under hook weighing. It is an alternative for weighing loads with non standard dimensions or those creating magnetic field. Under hook weighing is often applied for density determination procedure.

- Parts counting
- Density determination
- Percent setup
- Summing function
- Checkweighing



Technical data:

	PS 110/C/1	PS 1200/C/1
Max capacity	110 g	1200 g
Minimal load	20 mg	500 mg
Readability	1 mg	10 mg
Tare range	-110 g	-1200 g
Working temperature	+15 - +30 °C	
Repeatability	1 mg	10 mg
Linearity	±2 mg	±20 mg
Sensitivity drift	2 ppm/°C in temperature +18 - +30 °C	
Stabilization time	2 s	1,5 s
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A	
Adjustment/Calibration	internal (automatic)	
Pan size	128×128 mm	195×195 mm
Net weight / Gross weight	3,2 / 5,1 kg	3,2 / 5,1 kg
Packaging dimensions	570 × 325 × 225 mm	

Additional equipment:

ANTI-VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
NEEDLE PRINTER "EPSON"	SUITCASE FOR BALANCE
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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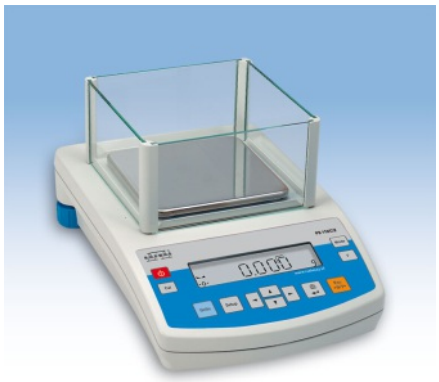
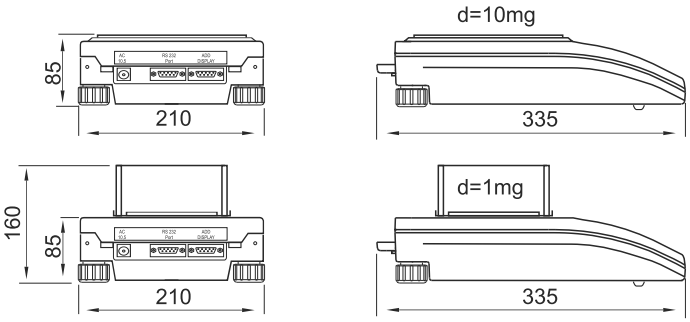
PHARMACEUTICAL BALANCES PS/C2



Balances for pharmacy series PS feature backlit LCD display. Measurement accuracy and reliability is assured by system of automatic internal adjustment/calibration triggered by time flow and temperature changes. PS/C2 series features weighing pan with dimensions 128×128 mm with a glass shield and readability 1 mg. The second type of balances for pharmacy series PS/C2 is offered with weighing pan 195 x 195 mm and readability 10 mg.
GLP procedure is available in a form of a non-modifiable report from balance adjustment/calibration process. Each balance series PS/C2 features RS 232 interface and additional display slot.
Balances series PS/C2 enable weighing loads outside the weighing pan, i.e. under hook weighing. It is an alternative for weighing loads with non-standard dimensions and shapes or those creating magnetic field. Under hook weighing is additionally applied in case of density determination procedure.

- Parts counting
- Density determination
- Percent setup
- Summing function
- Checkweighing



Technical data:

	PS 200/2000/C/2	PS 2100/C/2	PS 4500/C/2
Max capacity	200/2000 g	2100 g	4500 g
Minimal load	20 mg	500 mg	500 mg
Readability	1/10 mg	10 mg	10 mg
Tare range	-2000 g	-2100 g	-4500 g
Working temperature		+15 - +30 °C	
Repeatability	1/10 mg	10 mg	10 mg
Linearity	±2/10 mg	±20 mg	±20 mg
Sensitivity drift		2 ppm/°C in temperature +18 - +30 °C	
Stabilization time	2 s / 1,5 s	1,5 s	1,5 s
Power supply		230 V AC / 11 V AC	
Adjustment/Calibration		internal (automatic)	
Pan size	128x128 mm	195×195 mm	195×195 mm
Net weight / Gross weight	4,3 / 6,2 kg	4,6 / 6,5 kg	4,6 /6,5 kg
Packaging dimensions		570 x 325 x 225 mm	

Additional equipment:

ANTI-VIBRATION TABLE	LCD ADDITIONAL DISPLAY
"KAFKA" THERMAL PRINTER	EXTERNAL RECHARGEABLE BATTERY PACK
IMPACT "EPSON" PRINTER	SUITCASE FOR BALANCE
DENSITY DETERMINATION KIT FOR SOLIDS AND LIQUIDS	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000, REC-FS 2000
RACK FOR UNDER HOOK WEIGHING	

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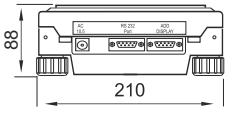
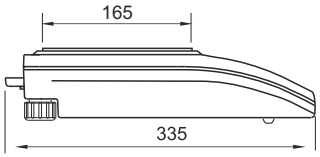
BALANCES FOR CEREALS DENSITY PS/X/G

PS/X/G balance is designed for density determination of cereals. It features system of automatic internal adjustment/calibration, pan size 195×195 mm and large backlit graphic display with extended user menu.
The density determination of cereals in loose state is carried out with application of precision balance series PS/X 4500/G and cereals density determination kit of 1l volume. The density is calculated automatically by balance's software (in accordance with tables on cereals density). Density determination kit is compatible with grains of: wheat, oats, barley, rye.
Balance, as a precise measuring instrument, is equipped with control procedures complying with ISO/GLP, high capacity memory (tables on cereals density). It enables cooperation with a printer or a computer.nBalances in standard feature RS 232 slot, PS/2 output and possibility of connecting an additional display.

Parts counting
Filling
Animal weighing
Density determination
Checkweighing
Percent setup
Statistics
Formulation

Quality of balances series PS/X has been confirmed by European certificate EC Type Approval.
Balances are equipped with possibility of weighing loads outside the main weighing platform (so called under hook weighing). This means of mass measuring is an alternative for loads with non-standard dimensions and shapes and those which create magnetic field. Under hook weighing is also applied for density determination procedures.





Technical data:

	PS/X 4500/G
Max capacity	4500 g
Minimal load	0,5 g
Readability	0,01 g
Tare range	-4500 g
Repeatability	0,02 g
Linearity	±0,02 g
Pan size	195×195 mmm
Working temperature	+15° - +30 °C
Interface	RS 232
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V DC / 1,1 A
Adjustment / Calibration	internal (automatic)
Display	graphic (backlit)
Net weight / Gross weight	4,8 / 6,7 kg
Packaging dimensions	570×325×225 mm

Additional equipment:

DENSITY DETERMINATION KIT FOR GRAINS	FOOT BUTTON FOR TARE OR PRINT FUNCTIONS
ANTI VIBRATION TABLE (MILD STEEL OR STAINLESS STEEL)	RACK FOR UNDER HOOK WEIGHING
KAFKA THERMAL PRINTER	ADDITIONAL LCD DISPLAY
IMPACT EPSON PRINTER	EXTERNAL RECHARGEABLE BATTERY WITH CHARGER
CITIZEN LABEL PRINTER	SUITCASE FOR BALANCE
PS/2 PC KEYBOARD	COMPUTER SOFTWARE: PW-WIN 2005, RAD-KEY 2000

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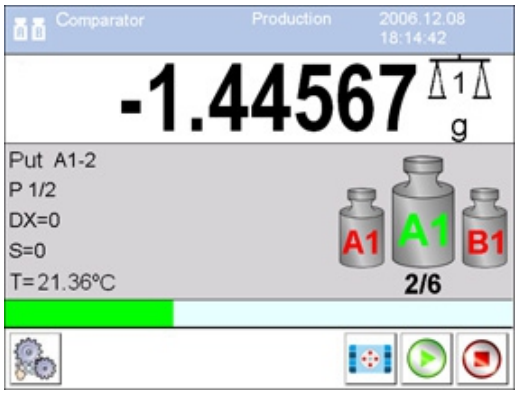
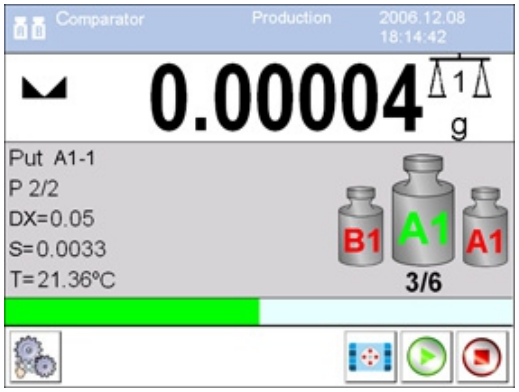
Automatic mass comparator AKM-4



Weight is loaded on the platform
Disc is lowered



Measurement is recorded

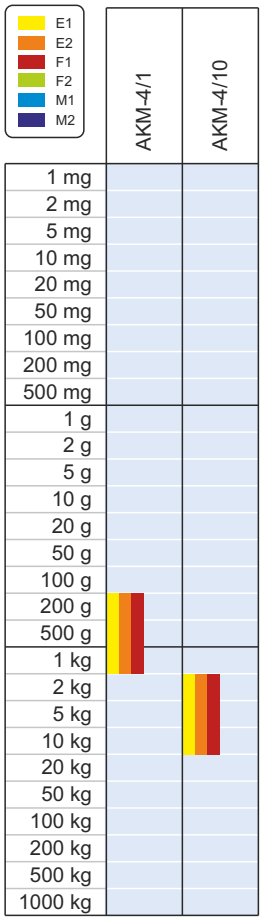
Highlights of mass comparator:

- Elimination of error caused by human factor in the process of loading weights (repeatable conditions of load placing on instrument's platform);
- Automation of mass comparison process – weights are loaded fully automatically;
- Fully repeatable measurements of all loaded mass;
- Simultaneous measurement of 3 weights;
- Elimination of ambient conditions (temperature change and humidity) influence on the process of mass comparison (mass comparator located in a chamber with constant ambient conditions).
- Mass comparator series AKM-4/X enable comparison of weights: 10 kg, 5 kg, 2 kg, and 1 kg.

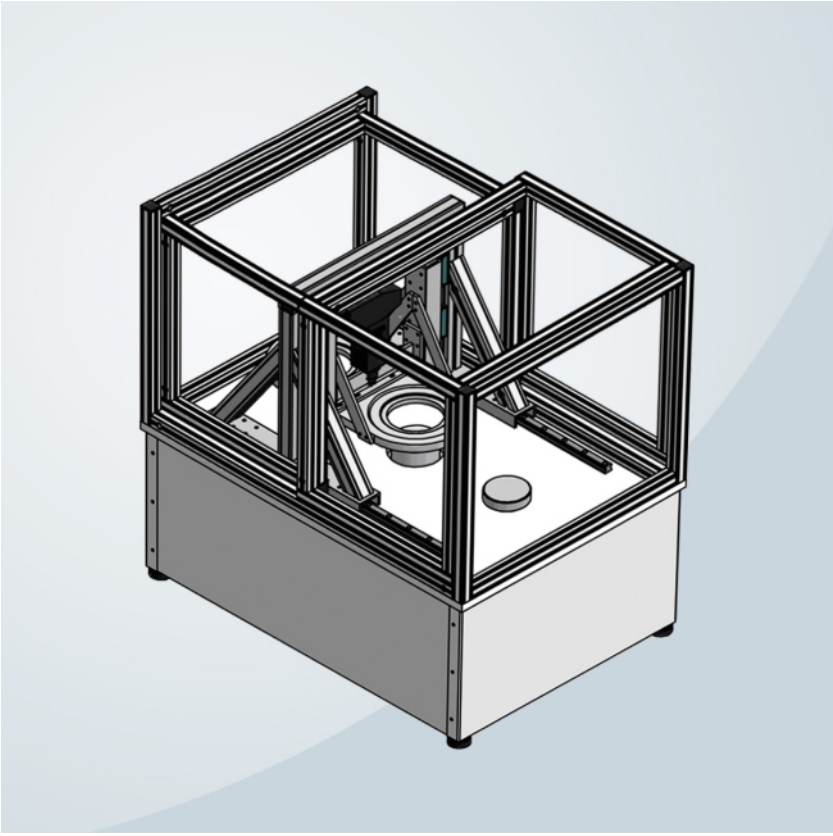
Technical Data:

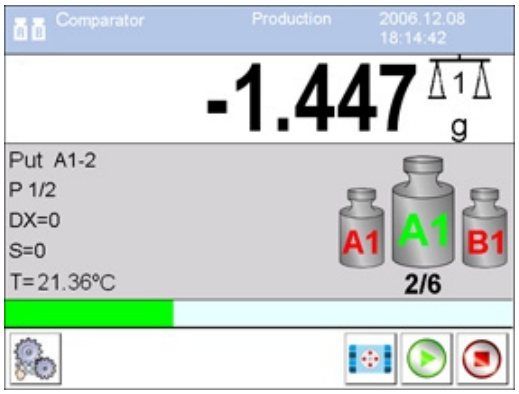
	AKM-4/1	AKM-4/10
Maximal capacity	1,02 kg	10,02 kg
Range of electromagnetic compensation	0 - 20 g	0 - 20 g
Readability	0,01 mg	0,1 mg
Repeatability*	0,01 mg (do 0,5 kg) 0,02 mg (do 1 kg)	0,1 mg (do 2 kg) 0,3 mg (do 10 kg)
Linearity	0,02 mg	0,2 mg
Stabilization time	10 s	10 s
Calibration range	E1-F1: 200 g - 1 kg	E1-F1: 2 kg - 10 kg
Sensitivity drift	1 ppm/°C in temp. +15°C - +30°C	
Working temperature	+15° - +30°C	
Maximal temperature change	0,5°C / 12 h	
Relative humidity	40 - 60 %	
Rate of humidity change	5 % / 4 h	
Power supply	115-230 V 50-60 Hz	
Type of adjustment	external	
Display	5,7" touch screen	
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)	
Maximal power consumption	43 W	
Dimensions	1040×880×610 mm	

* 6 ABBA cycles

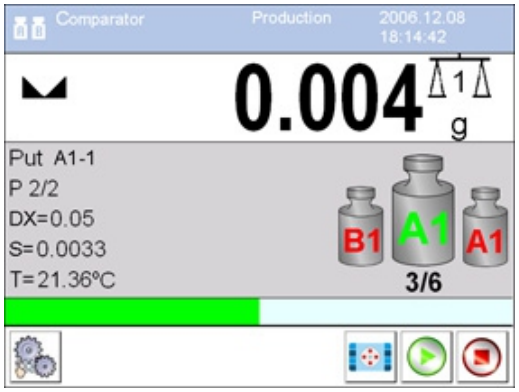


Automatic mass comparator AKM-2





Weight is loaded on the platform by an automatic crane



Measurement is recorded

Highlights of mass comparator:

- Comparison of mass standards and weights from 20kg to 50 kg;
- Comparison of weights in classes E1, E2, F1;
- Automation of comparison process of heavy weights (up to 50 kg);
- Repeatable weight loading onto the mass comparator's platform;
- Elimination of ambient conditions (temperature change and humidity) influence on the process of mass comparison (mass comparator located in a chamber with constant ambient conditions);
- Operation of mass comparator through a touch panel.

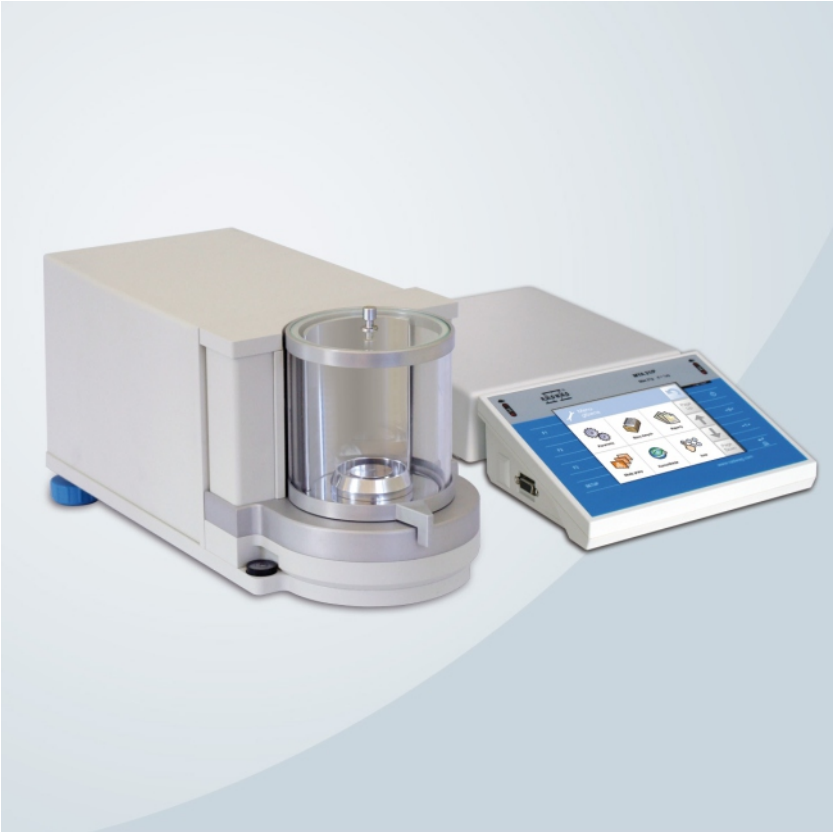
Technical Data:

	AKM-2/50
Maximal capacity	50,5 kg
Range of electromagnetic compensation	0 - 500 g
Readability	1 mg
Repeatability*	1 mg (do 20 kg) 2 mg (do 50 kg)
Linearity	2 mg
Stabilization time	10 s
Calibration range	E1-F1: 20 kg - 50 kg
Sensitivity drif	2 ppm/°C in temp. +15°C - +30°C
Working temperature	+15° - +30°C
Maximal temperature change	0,5°C / 12 h
Relative humidity	40 - 60 %
Rate of humidity change	5 % / 4 h
Power supply	115-230 V 50-60 Hz
Type of adjustment	external
Display	5,7" touch screen
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)
Maximal power consumption	250 W
Dimensions	950×700×720 mm

* 6 ABBA cycles

	AKM-2/50
E1 E2 F1 F2 M1 M2	
1 mg	
2 mg	
5 mg	
10 mg	
20 mg	
50 mg	
100 mg	
200 mg	
500 mg	
1 g	
2 g	
5 g	
10 g	
20 g	
50 g	
100 g	
200 g	
500 g	
1 kg	
2 kg	
5 kg	
10 kg	
20 kg	
50 kg	
100 kg	
200 kg	
500 kg	
1000 kg	

Mass comparators UYA/KO



Mass comparators series UYA/KO enable calibration of mass standards and weights from 1 mg to 100 g and readability of 0,1 µg. The mass comparators have implemented a procedure of determining average standard deviation using ABA or ABBA method from maximally 20 repetitions. On completion of comparison process, the instrument automatically generates a report with test results.

Control over the instrument is carried out by a weighing module comprising a 5,7" colour touch panel. UYA/KO series features new intuitive software with user friendly menu.

The mass comparator features an aesthetic and spacious glass weighing chamber with automatically opened doors. The weighing chamber components are made of glass and steel to prevent electrostatic charges from influencing the measurement result.

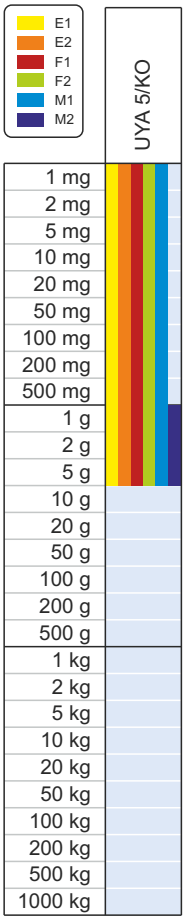
Mass comparators series UYA/KO comprise two elements, where the electronic module is separated from the precise mechanical measuring system. Detachable indicator enables significant reduction of vibrations transferred onto the measuring system, and additionally improves ergonomics of operation.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Technical Data:

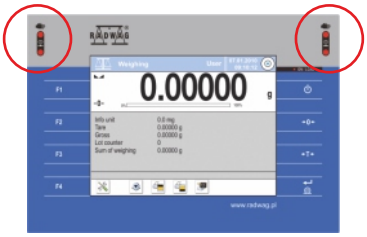
	UYA 5/KO
Maximal capacity	5,1 g
Range of electromagnetic compensation	3,9 - 5,1 g
Readability	0,1 µg
Repeatability*	0,4 µg
Linearity	0,5 µg
Pan size	ø 14 mm
Stabilization time	10 s
Ballast weights	3 g, 1 g
Calibration range	E1-M1: 1 mg - 5 g M2-M3: 1 g - 5 g
Sensitivity drift	1 ppm/C in temp. +15C - +35C
Working temperature	+15° - +30°C
Maximal temperature change	0,5ºC / 12 h
Relative humidity	40 - 70 %
Rate of humidity change	5 % / 4 h
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V AC / 1,1 A
Type of adjustment	external
Display	5,7" touch screen
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)
Net weight/Gross weight	10,2 / 14,7 kg
Packaging size	565×565×355 mm

* ABBA cycles



Additional equipment:

External calibration weight	PC software managing calibration process
Temperature and weighing chamber humidity sensor	



Infrared proximity sensors

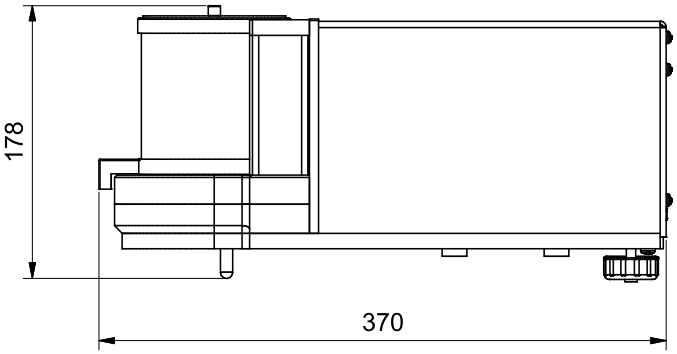
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment

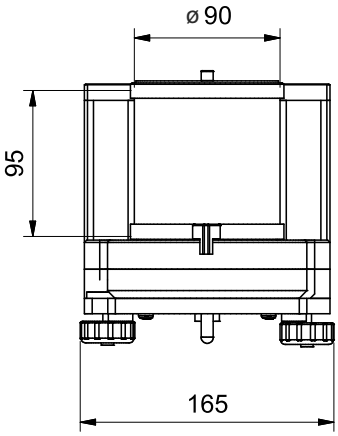
Data exchange through USB storage devices

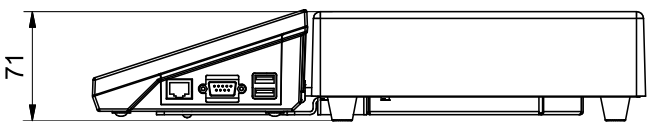
- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

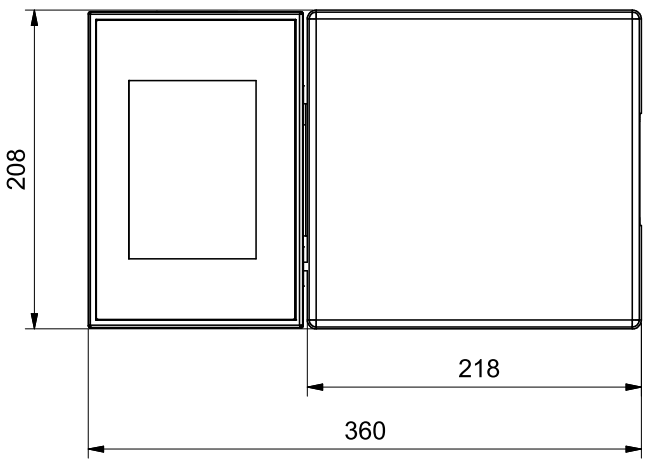
Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out

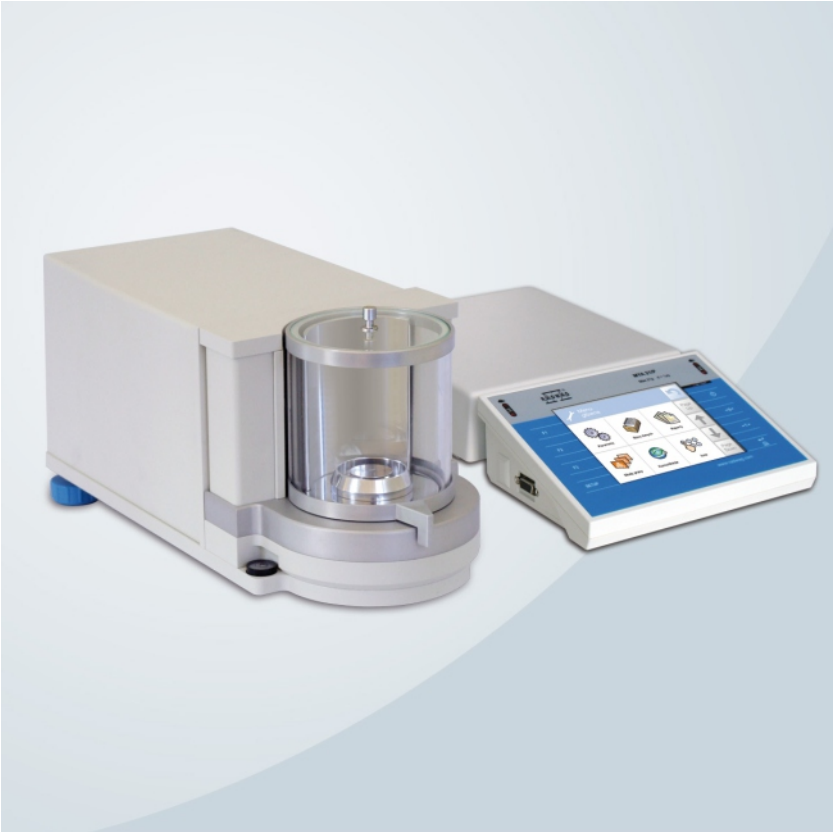








Mass comparators MYA/KO



Mass comparators series MYA/KO enable calibration of mass standards and weights from 1 mg to 100 g and readability of 1 µg. The mass comparators have implemented a procedure of determining average standard deviation using ABA or ABBA method from maximally 20 repetitions. On completion of comparison process, the instrument automatically generates a report with test results.

Control over the instrument is carried out by a weighing module comprising a 5,7" colour touch panel. MYA/KO series features new intuitive software with user friendly menu.

The mass comparator features an aesthetic and spacious glass weighing chamber with automatically opened doors. The weighing chamber components are made of glass and steel to prevent electrostatic charges from influencing the measurement result.

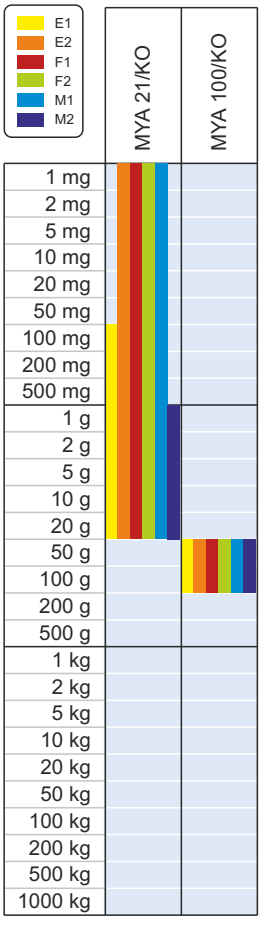
Mass comparators series MYA/KO comprise two elements, where the electronic module is separated from the precise mechanical measuring system. Detachable indicator enables significant reduction of vibrations transferred onto the measuring system, and additionally improves ergonomics of operation.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Technical Data:

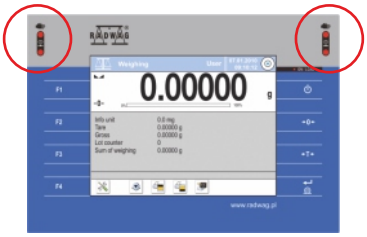
	MYA 21/KO	MYA 100/KO
Maximal capacity	21 g	101 g
Range of electromagnetic compensation	9 - 21 g	99 - 101 g
Readability	1 µg	1 µg
Repeatability*	3 µg	5 µg
Linearity	5 µg	5 µg
Pan size	ø 14 mm	ø 18 mm (50g), ø 22 mm (100g)
Stabilization time	15 s	15 s
Ballast weights	10 g	50 g
Calibration range	E1: 100 mg - 20 g E2-M1: 1 mg - 20 g M2-M3: 1 g - 20 g	E1-M3: 50 g - 100 g
Sensitivity drift	1 ppm/C in temp. +15C - +35C	
Working temperature	+15° - +30°C	
Maximal temperature change	0,5ºC / 12 h	
Relative humidity	40 - 70 %	
Rate of humidity change	5 % / 4 h	
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V AC / 1,1 A	
Type of adjustment	external	
Display	5,7" touch screen	
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)	
Net weight/Gross weight	10,2 / 14,7 kg	
Net weight/Gross weight	565×565×355 mm	

* ABBA cycles



Additional equipment:

External calibration weight	PC software managing calibration process
Temperature and weighing chamber humidity sensor	



Infrared proximity sensors

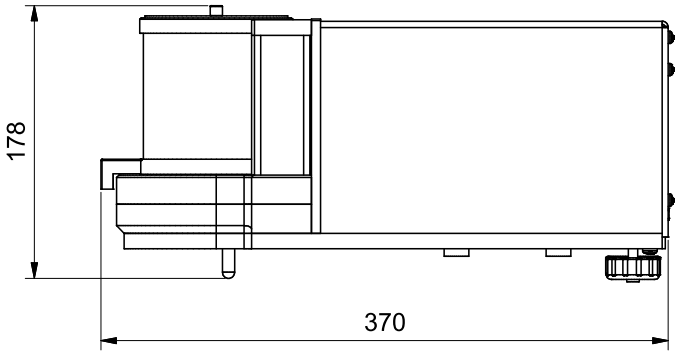
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment

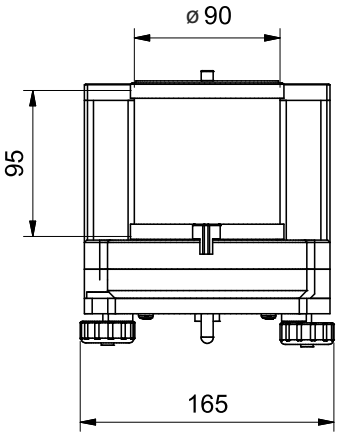
Data exchange through USB storage devices

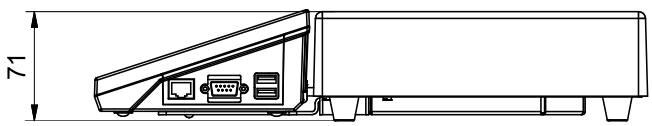
- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

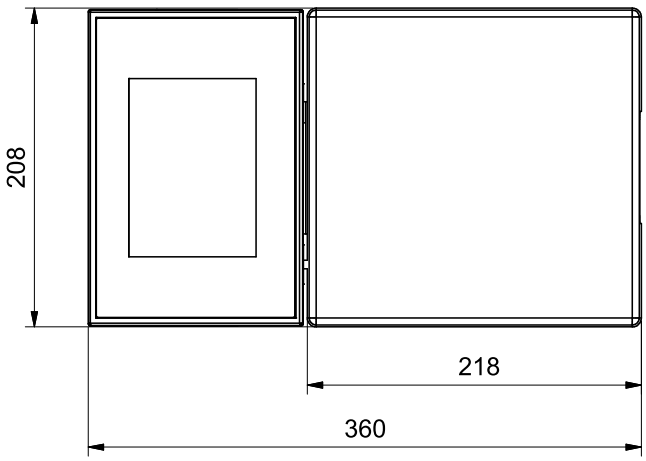
Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out









Mass comparators WAY/KO

Mass comparators series WAY/KO enable calibration of mass standards and weights from 1 g to 10 kg and readability from 0,01 mg. The mass comparators have implemented a procedure of determining average standard deviation using ABA or ABBA method from maximally 20 repetitions. On completion of comparison process, the instrument automatically generates a report with test results.

Control over the instrument is carried out by a weighing module comprising a 5,7" colour touch panel. WAY/KO series features new intuitive software with user friendly menu.

The mass comparator features an aesthetic and spacious glass weighing chamber with automatically opened top and side doors. The weighing chamber components are made of glass and steel to prevent electrostatic charges from influencing the measurement result.

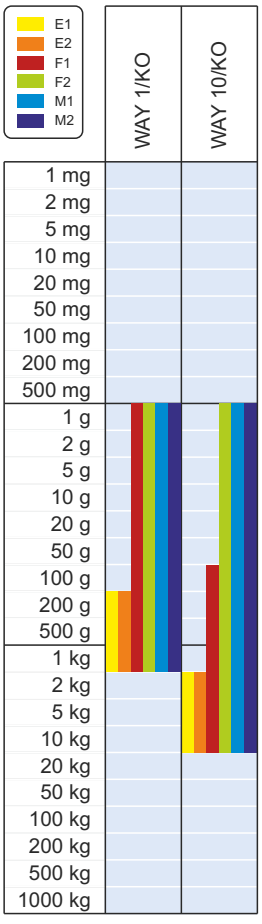
Mass comparators series WAY/KO comprise two elements, where the electronic module is separated from the precise mechanical measuring system. Detachable indicator enables significant reduction of vibrations transferred onto the measuring system, and additionally improves ergonomics of operation.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained international recognition among Accredited Calibration Laboratories, in many countries.

Technical Data:

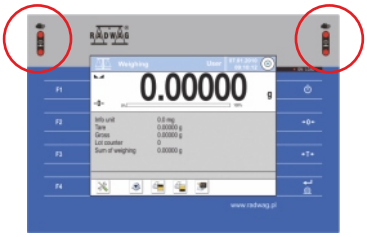
	WAY 1/KO	WAY 10/KO
Maximal capacity	1,02 kg	10,2 kg
Range of electromagnetic compensation	0 ÷ 20 g	0 ÷ 200 g
Readability	0,01 mg	0,1 mg
Repeatability*	0,01 mg (do 200 g) 0,03 mg (500 g ÷ 1 kg)	0,1 mg (do 2 kg) 0,4 mg (5 kg) 0,7 mg (10 kg)
Linearity	0,1 mg	0,7 mg
Pan size	ø 28 / ø 59 mm	ø 48 / ø 99 mm
Stabilization time	10 s	10 s
Ballast weights	100 g, 2x50 g	5 kg
Calibration range	E1÷E2: 200 g - 1 kg F1÷M3: 1 g - 1 kg	E1÷E2: 2 kg - 10 kg F1: 100 g - 10 kg F2÷M3: 1 g - 10 kg
Sensitivity drift	1 ppm/C in temp. +15° - +35°C	
Working temperature	+15° - +30°C	
Maximal temperature change	0,5ºC / 12 h	
Relative humidity	40 - 70 %	
Rate of humidity change	5 % / 4 h	
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V AC / 1,1 A	
Type of adjustment	external	
Display	5,7" touch screen	
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)	
Net weight/Gross weight	14/17,7 kg	16,5/20,2 kg
Packaging size	780×825×400 mm	

* ABBA cycles



Additional equipment:

Antivibration table for laboratory balances	Additional LCD display „WD-3/01/Y"
Kafka thermal printer	PC keyboard
Dot matrix Epson printer	Antistatic cable
Tare and "Print" foot button	Bar code scanner
PW-WIN computer software	Cable RS 232 (scale - Kafka printer) "P0136"
RAD-KEY computer software	Cable RS 232 (scale - computer) "P0108"
Computer assistance in calibration process	Cable RS 232 (scale, Epson , Citizen printer) "P0151"
Ambient conditions module	



Infrared proximity sensors

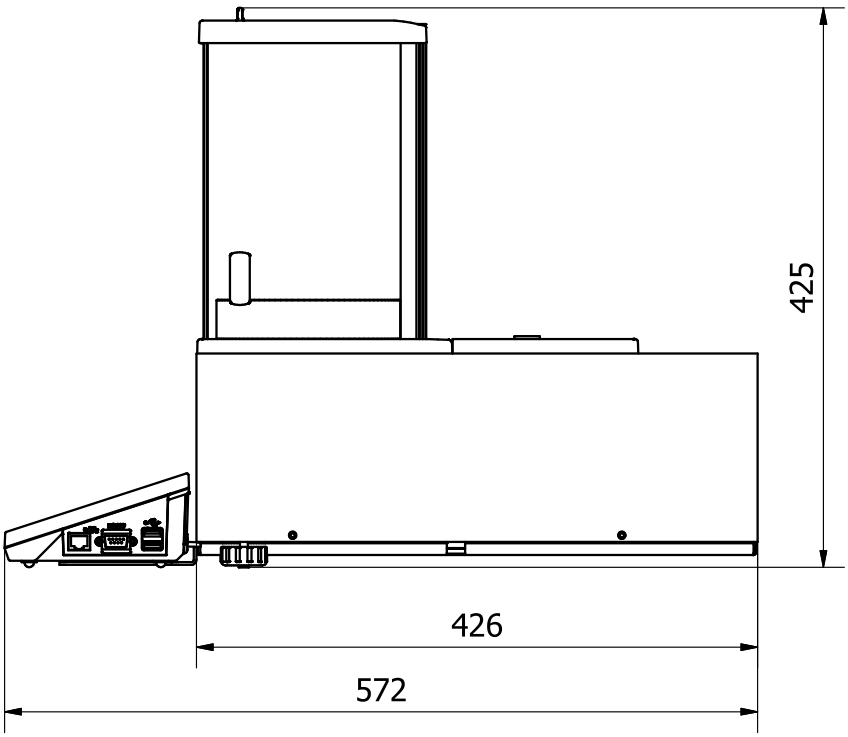
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment

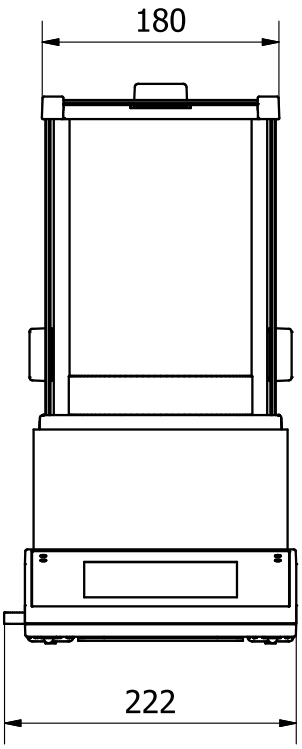
Data exchange through USB storage devices

- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out





Mass comparators APPY/KO

Mass comparators series APP/Y/KO enable calibration of mass standards and weights from 5 kg to 50 kg and readability of 1 mg. The mass comparators have implemented a procedure of determining average standard deviation using ABA or ABBA method from maximally 20 repetitions. On completion of comparison process, the instrument automatically generates a report with test results.

Control over the instrument is carried out by a weighing module comprising a 5,7" colour touch panel. APP/Y/KO series features new intuitive software with user friendly menu.

The mass comparator has adjustable weighing platform limiters which aid central loading of the tested weights and mass standards. The weighing chamber components are made of glass and steel to prevent electrostatic charges from influencing the measurement result.

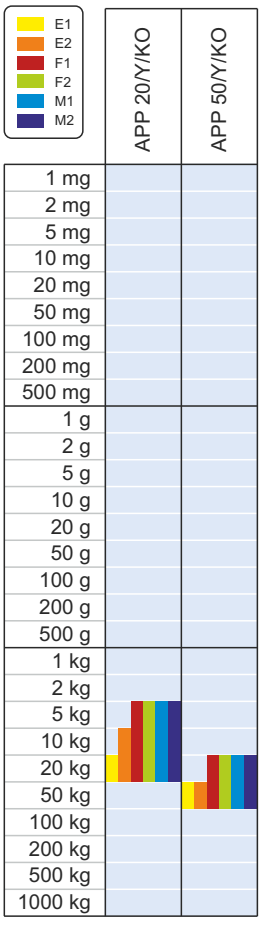
Mass comparators series APP/Y/KO comprise two elements, where the electronic module is separated from the precise mechanical measuring system. Detachable indicator enables significant reduction of vibrations transferred onto the measuring system, and additionally improves ergonomics of operation.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Technical Data:

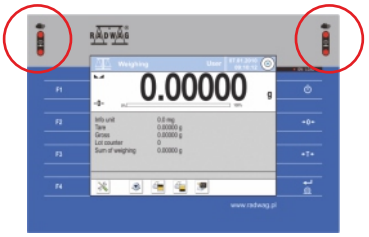
	APP 20/Y/KO	APP 50/Y/KO
Maximal capacity	20,5 kg	51 kg
Range of electromagnetic compensation	0 - 500 g	0 - 500 g
Readability	1 mg	2 mg
Repeatability*	1,5 mg	3 mg
Linearity	10 mg	15 mg
Pan size	308×308 mm	308×308 mm
Stabilization time	10 s	10 s
Calibration range	E1: 20 kg E2: 10 - 20 kg F1-M3: 5 kg - 20 kg	E1-E2: 50 kg F1-M3: 20 kg - 50 kg
Sensitivity drift	1,5 ppm/C in temp. +15C - +35C	
Working temperature	+15° - +30°C	
Maximal temperature change	0,5ºC / 12 h	
Relative humidity	40 - 70 %	
Rate of humidity change	5 % / 4 h	
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz / 13,5 ÷ 16 V AC / 1,1 A	
Type of adjustment	external	
Display	5,7" touch screen	
Interface	2×USB, RS 232, Ethernet, 2 inputs/2 outputs (digital)	
Net weight/Gross weight	10,9 / 12,9 kg	
Packaging size	625×394×340 mm	

* ABBA cycles



Additional equipment:

Antivibration table for laboratory balances	Additional LCD display „WD-3/01/Y"
Kafka thermal printer	PC keyboard
Dot matrix Epson printer	Antistatic cable
Tare and "Print" foot button	PUE-7-32 wall mounting kit
PW-WIN computer software	Bar code scanner
RAD-KEY computer software	Cable RS 232 (scale - Kafka printer) "P0136"
Computer assistance in calibration process	Cable RS 232 (scale - computer) "P0108"
Ambient conditions module	Cable RS 232 (scale, Epson , Citizen printer) "P0151"



Infrared proximity sensors

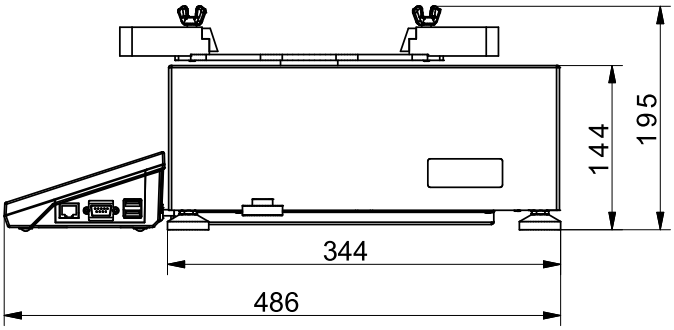
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment

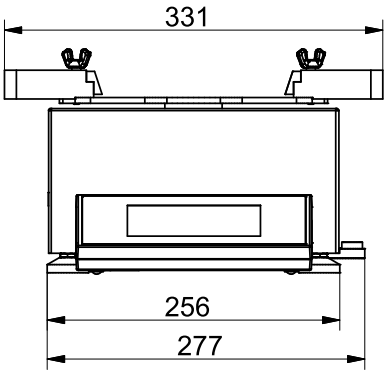
Data exchange through USB storage devices

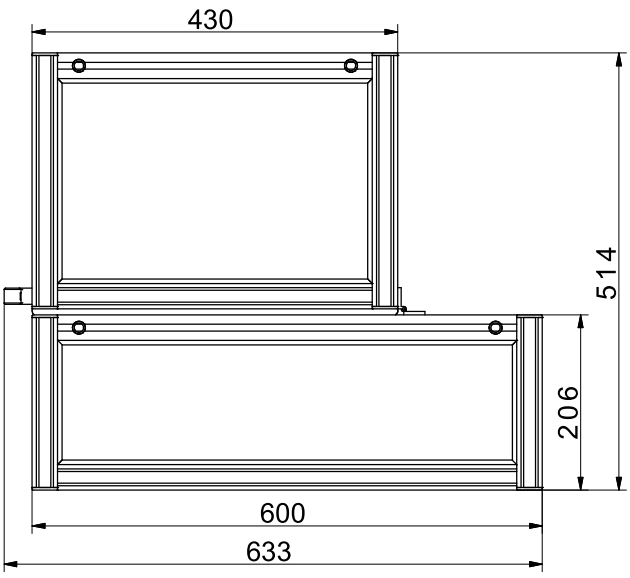
- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

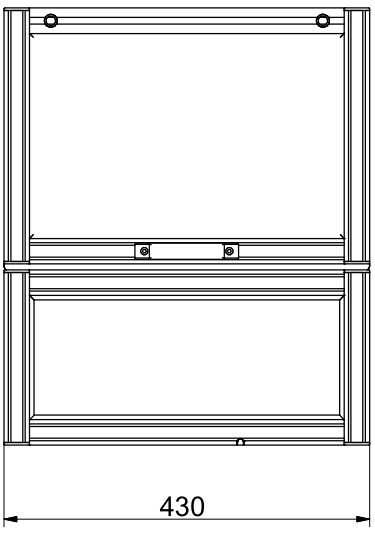
Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out

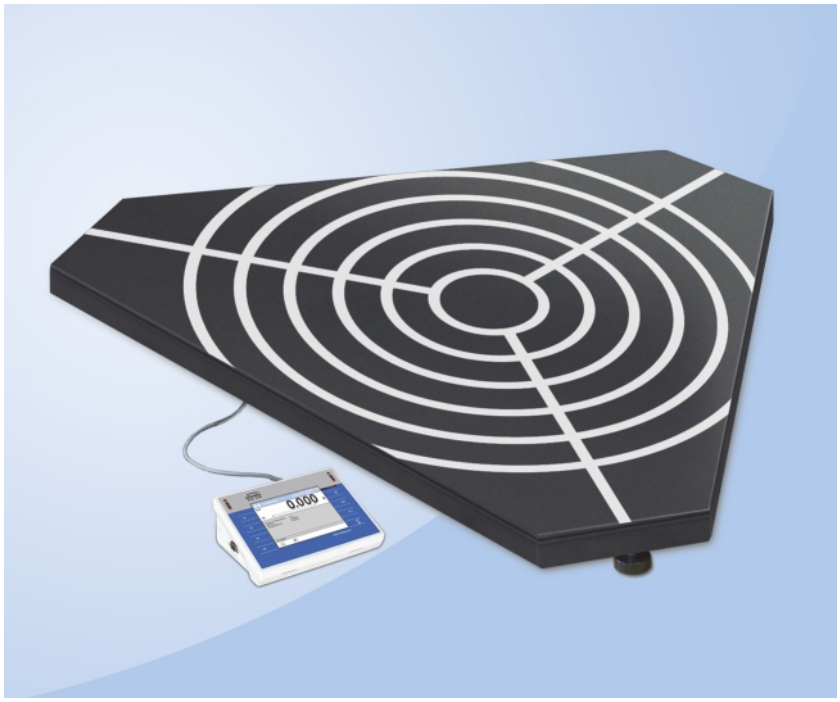








Mass comparators WPY/KO



Mass comparators series WPY/KO enable calibration of mass standards and weights from 100 to 1000 kg and readability from 5g. The mass comparators have implemented a procedure of determining average standard deviation using ABA or ABBA method from maximally 20 repetitions. On completion of comparison process, the instrument automatically generates a report with test results.

Control over the instrument is carried out by a weighing module comprising a 5,7" colour touch panel.WPY/KO series features new intuitive software with user friendly menu.

Comparator is also equipped with triangular platform with bevelled corners.

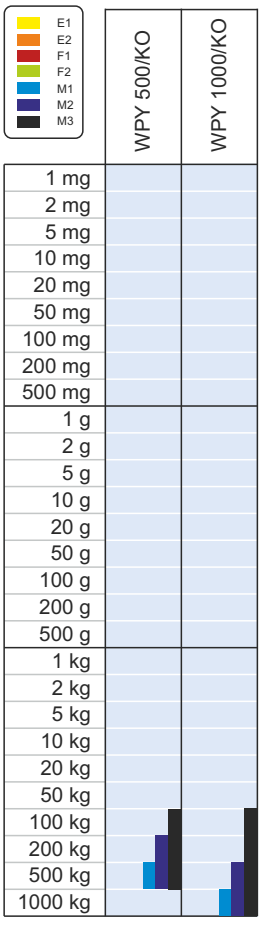
Mass comparators series WPY/KO comprise two elements, where the electronic module is separated from the precise mechanical measuring system. Detachable indicator enables significant reduction of vibrations transferred onto the measuring system, and additionally improves ergonomics of operation.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained international recognition among Accredited Calibration Laboratories, in many countries.

Technical data:

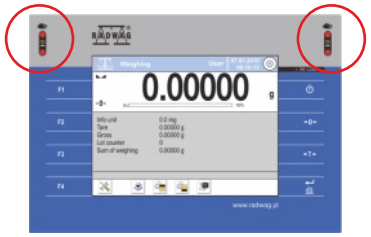
	WPY 500/KO	WPY 1000/KO
Max capacity	510 kg	1100 kg
Range of electromagnetic compensation	at the whole range	at the whole range
Readability	5 g	10 g
Repeatability *	5 g	10 g
Linearity	15 g	30 g
Pan size	1100×1270 mm	1100×1270 mm
Stabilization time	10 s	10 s
Calibration range	M1: 500 kg M2: 200 - 500 kg M3: 100 - 500 kg,	M1: 1000 kg M2: 500 - 1000 kg M3: 100 - 1000 kg,
Working temperature	-10 - +40°C	
Maximal temperature changes	5ºC / 22 h	
Relative humidity	max 85 % (+40°C)	
Supply	110-230 V AC / 10,5-15 V DC	
Type of adjustment	external	
Display	5,7" touch screen	
Interface	2×USB, 2×RS 232, Ethernet, 2 inputs/2 outputs (digital)**	
Net/Gross weight	200 / 200 kg	
Packing size	1166×1347×190 mm	

* 6 cycles ABBA



Additional equipment:

Kafka, Epson, Citizen printer	Power loop output AP2
Large or small LCD display	PC keyboard
Tansponder card reader	PC software managing calibration process
Bar code scaner	PC software PW-WIN, RAD-KEY



Infrared proximity sensors

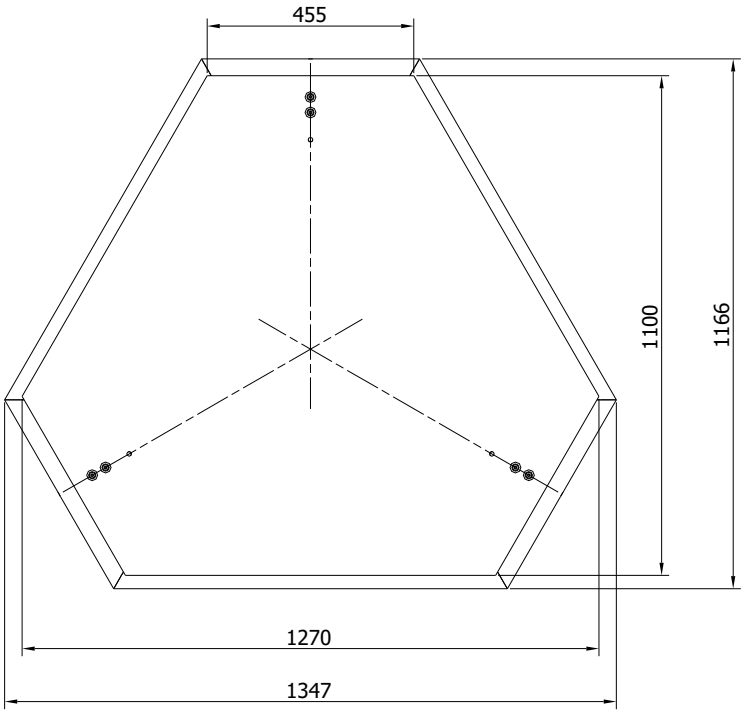
- PRINT function
- TARE function
- opening weighing chambers
- sensors' sensitivity adjustment

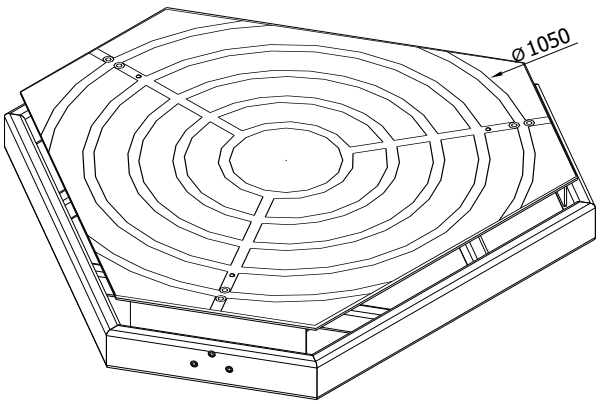
Data exchange through USB storage devices

- export weighing data
- export/import databases
- export/import balance settings
- exchanging data between balances

Communication interfaces

- Ethernet
- RS 232
- 2×USB
- 2 in/out





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